

Figure 1

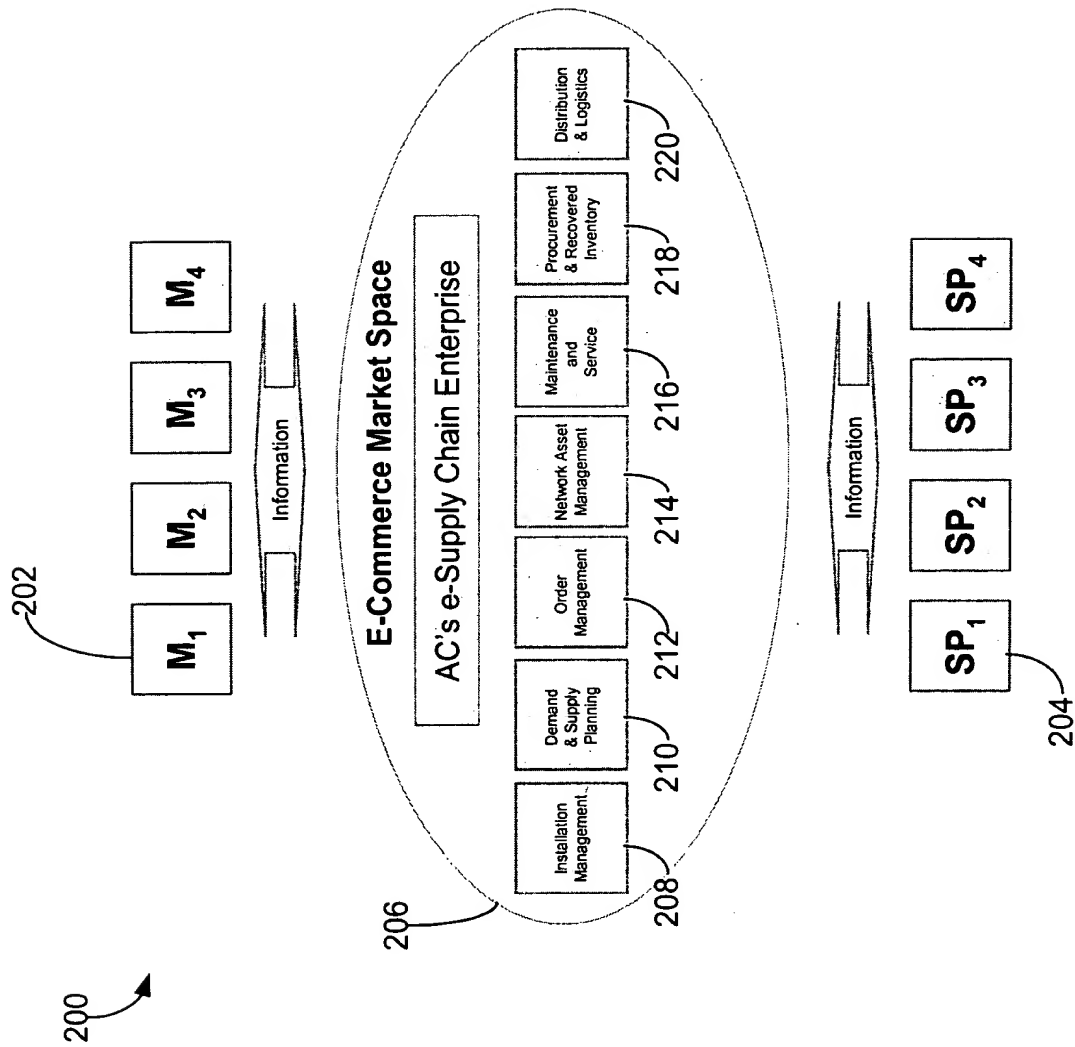


Figure 2

300

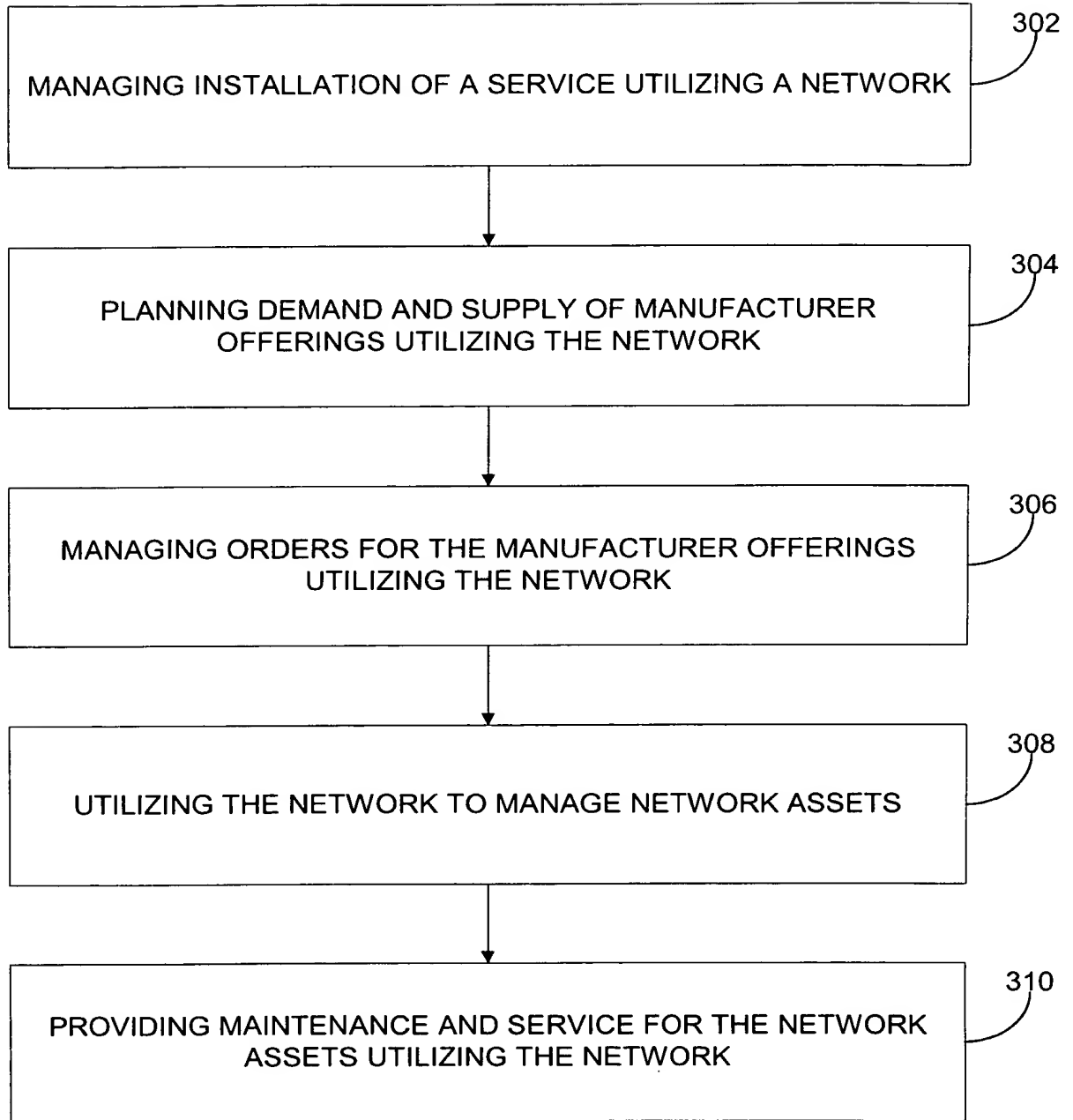


Figure 3

FIG. 4 is a block diagram of a system 400 for managing a network of assets. The system 400 includes a network 402, a network management system 404, and a network asset management system 406. The network 402 is connected to the network management system 404, which is connected to the network asset management system 406. The network management system 404 includes a network management module 408, a network asset management module 410, a network asset management module 412, a network asset management module 414, and a network asset management module 416. The network asset management system 406 includes a network asset management module 408, a network asset management module 410, a network asset management module 412, a network asset management module 414, and a network asset management module 416.

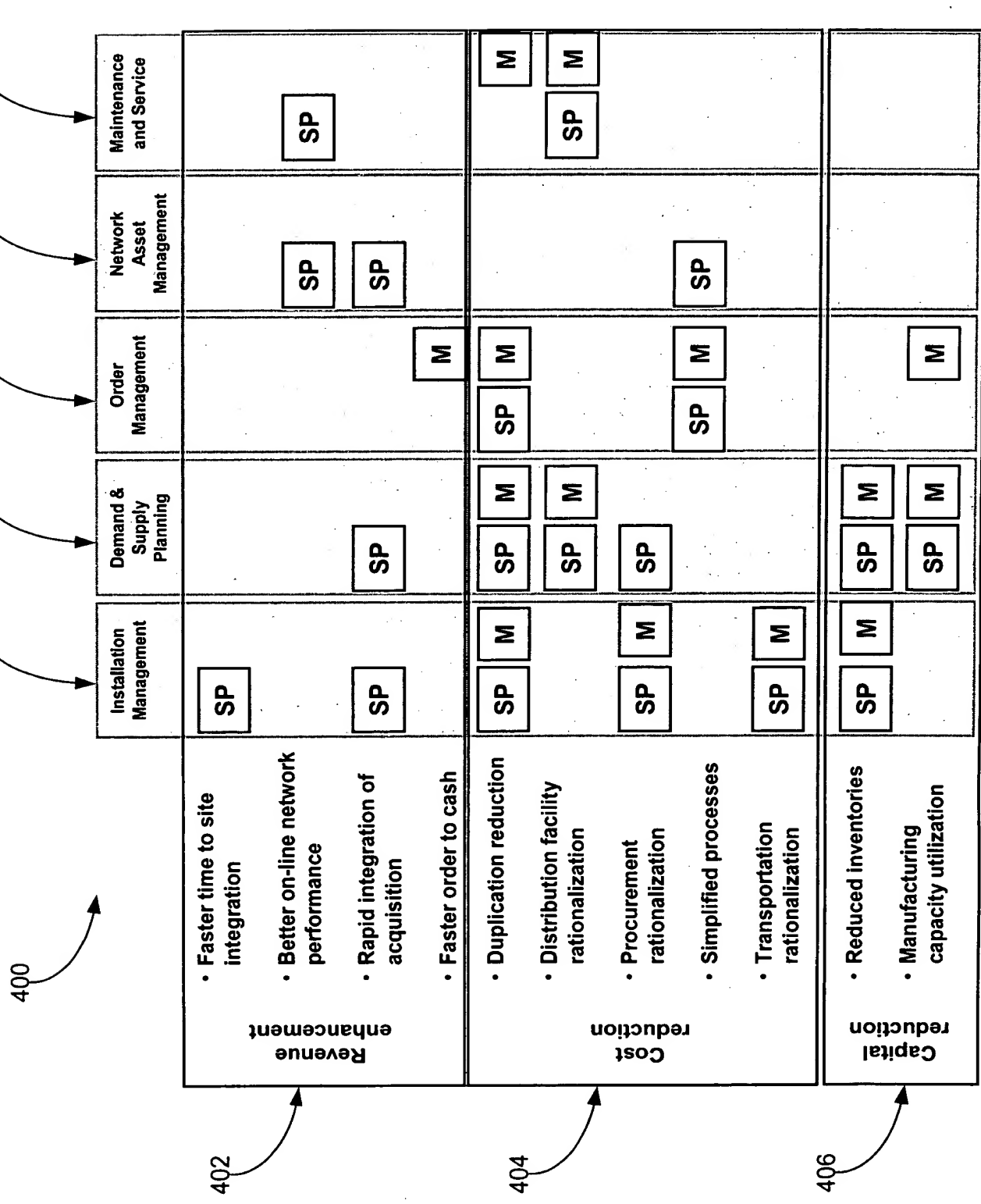


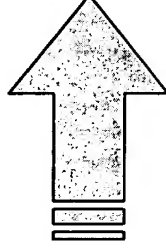
Figure 4

Core Competencies

Service Provider
<ul style="list-style-type: none"> • New customer acquisitions • New customer segmentation strategy • Strategic technology mgmt • Technology life cycle management • New service offerings

502

- Network is planned based on a capability, (i.e. capacity and features)



- Availability of sites is synchronized with the network roll out
- Joint optimization of network assets

504

Manufacturer
<ul style="list-style-type: none"> • Focus on managing the customer relationship • Focus on managing production capacity • Focus on R & D • Focus on market coverage roll out

New Business Relationships

Service Provider
<ul style="list-style-type: none"> • Provide an open access channel for new service offerings from the manufacturer • Move to a focus on platform release strategy in line with service offerings

506

Manufacturer
<ul style="list-style-type: none"> • Gain the potential to reposition the network as a platform for their solutions pipeline • The ability for the manufacturer to build strategic alliances with solution integrators becomes a critical differentiator

508

Figure 5

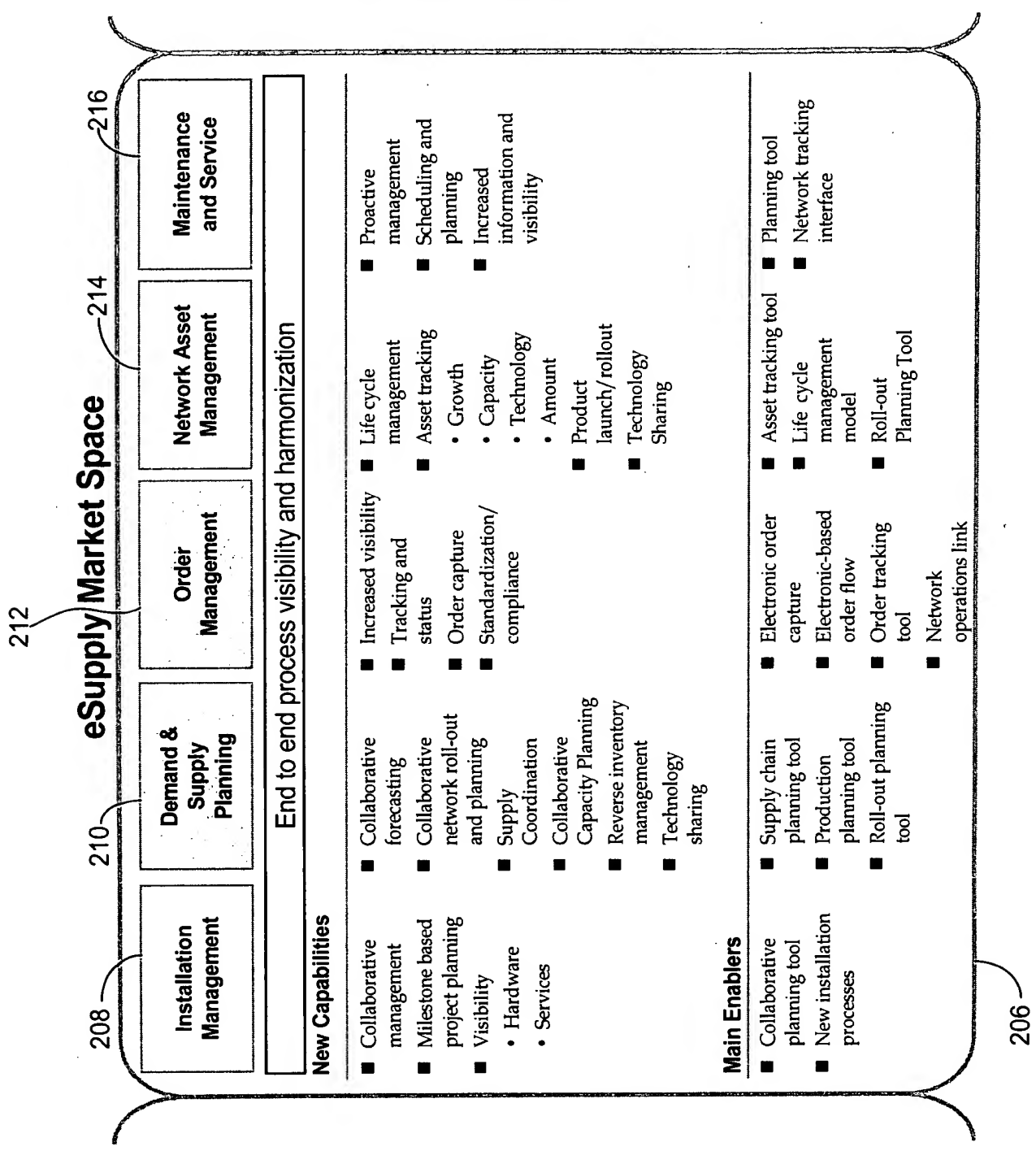


Figure 6

700

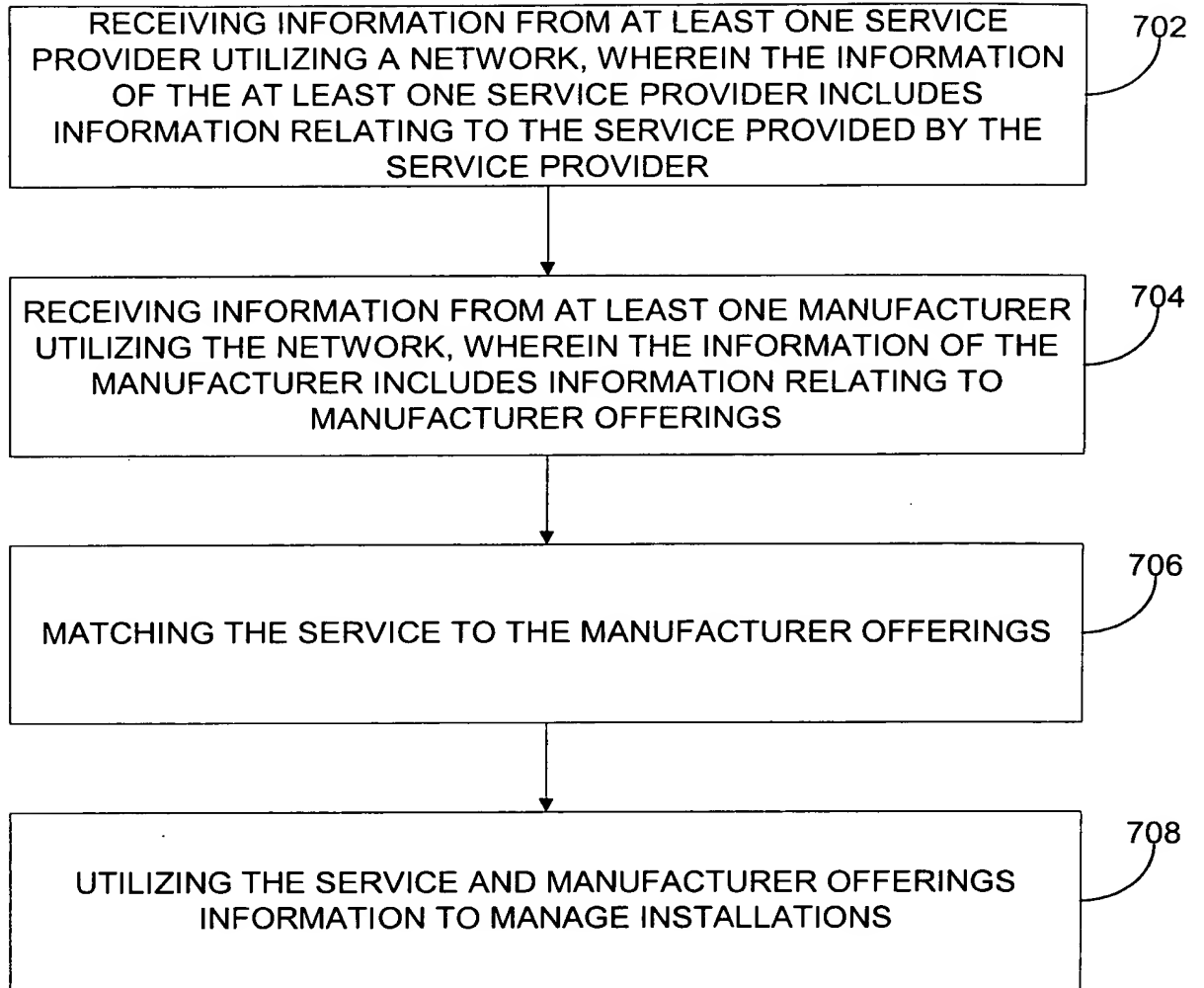


Figure 7

800

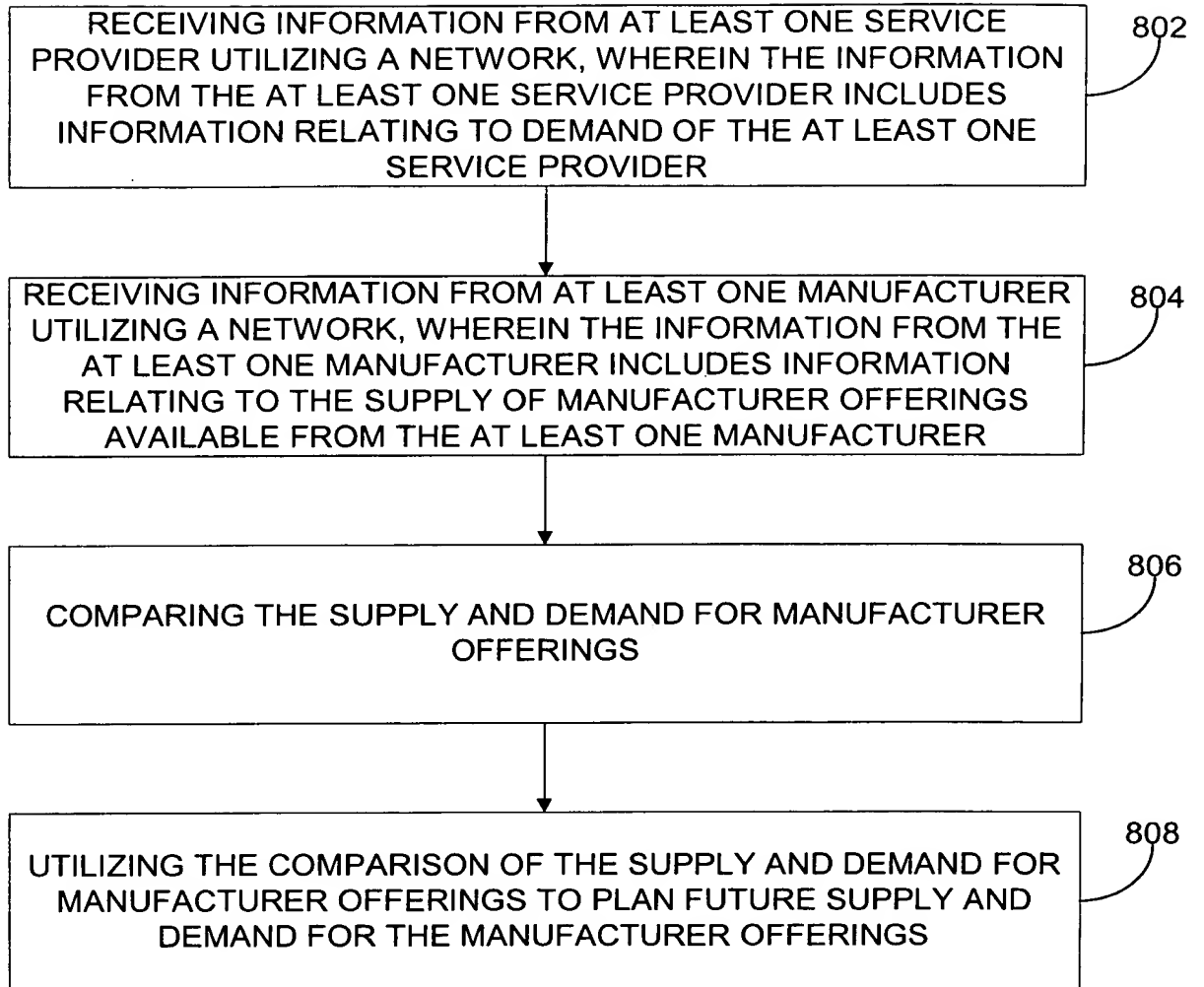


Figure 8

900

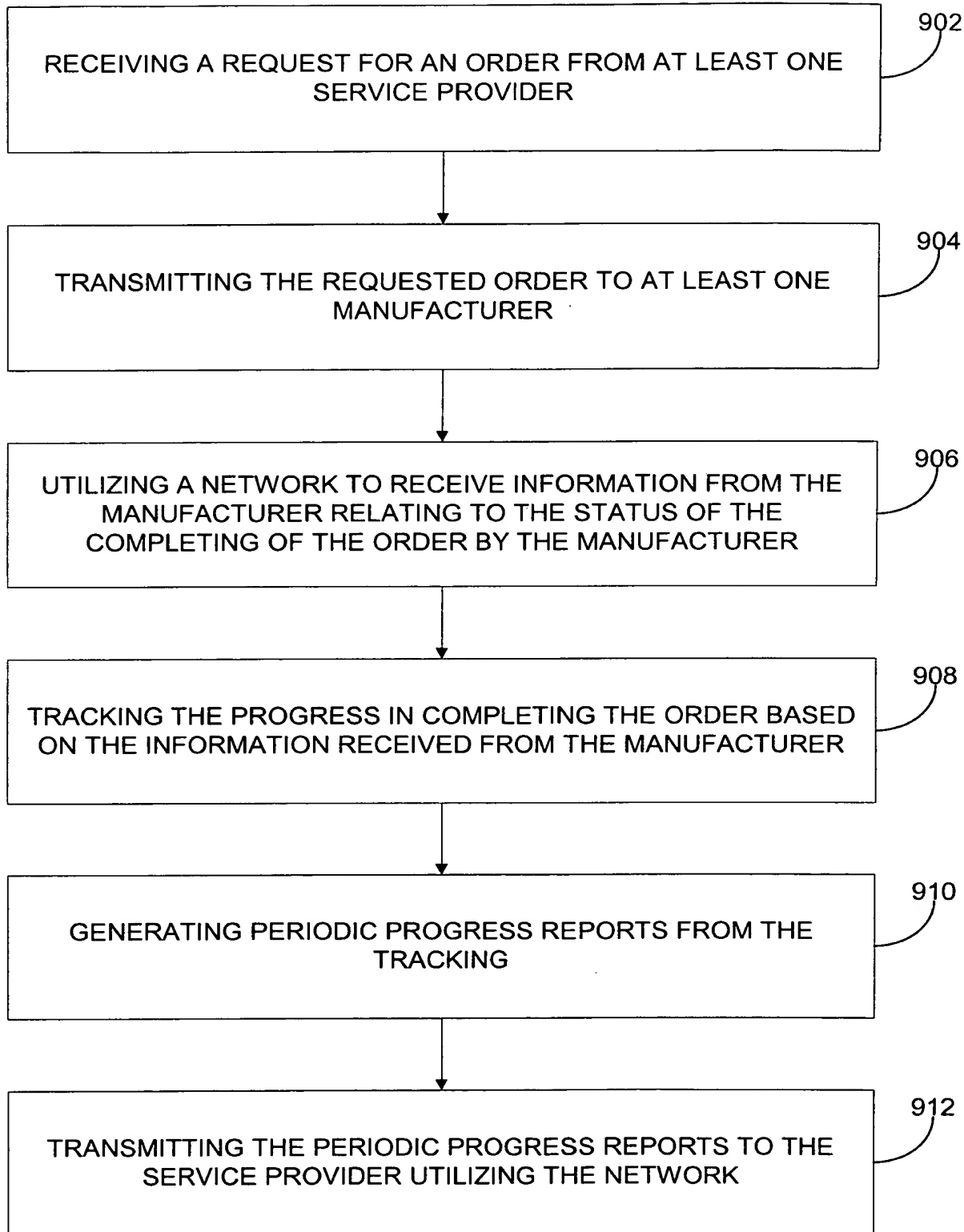


Figure 9

1000

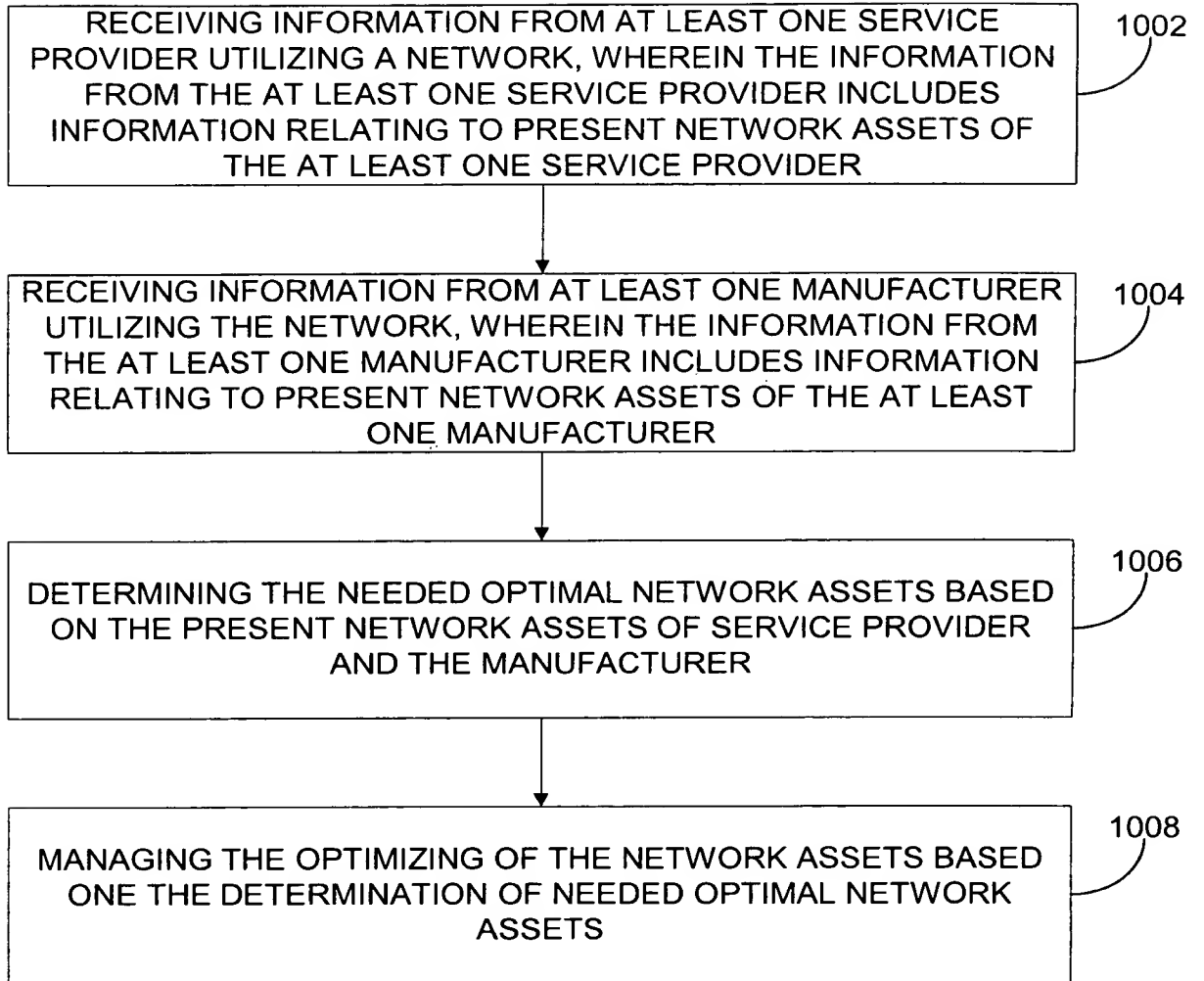


Figure 10

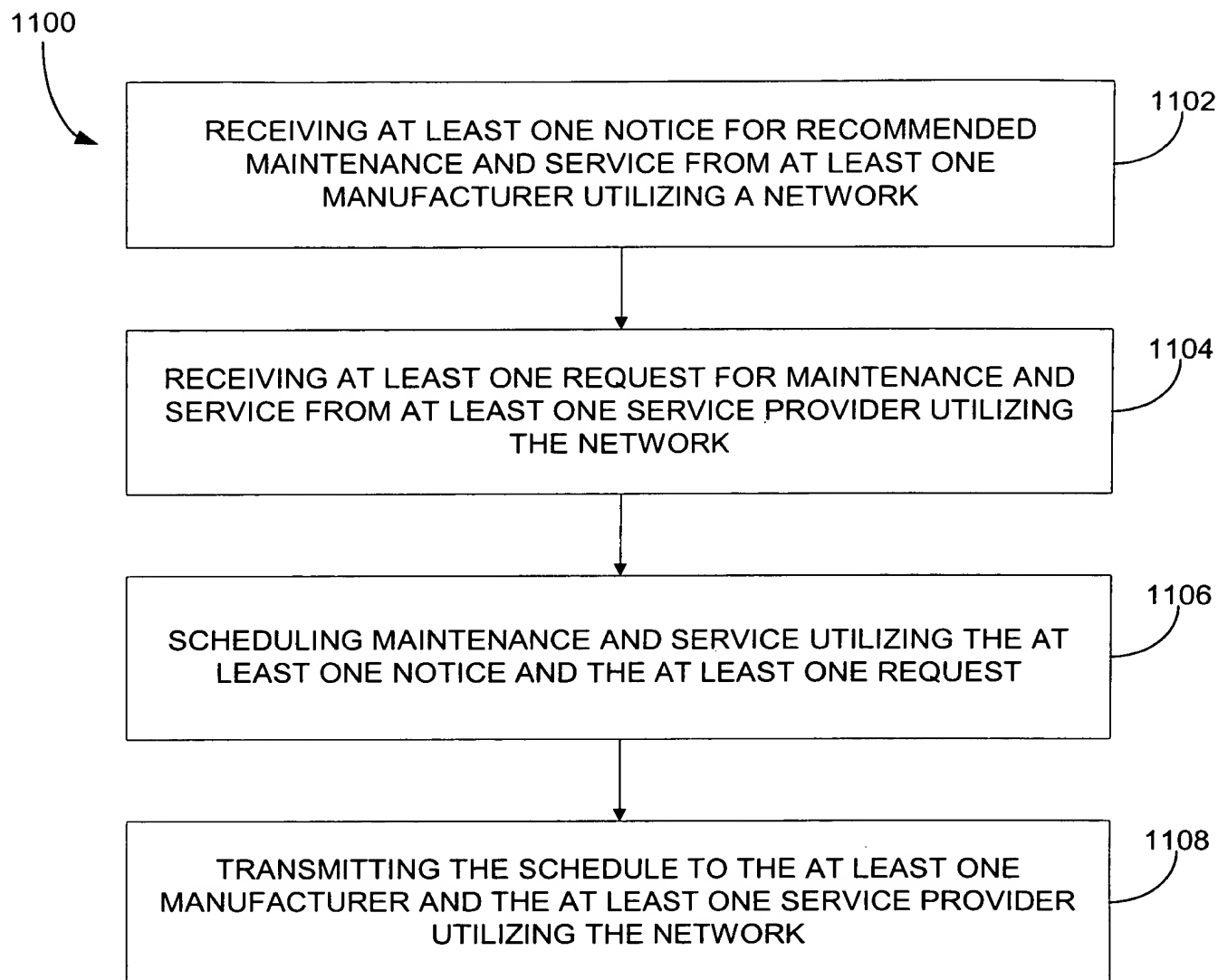


Figure 11

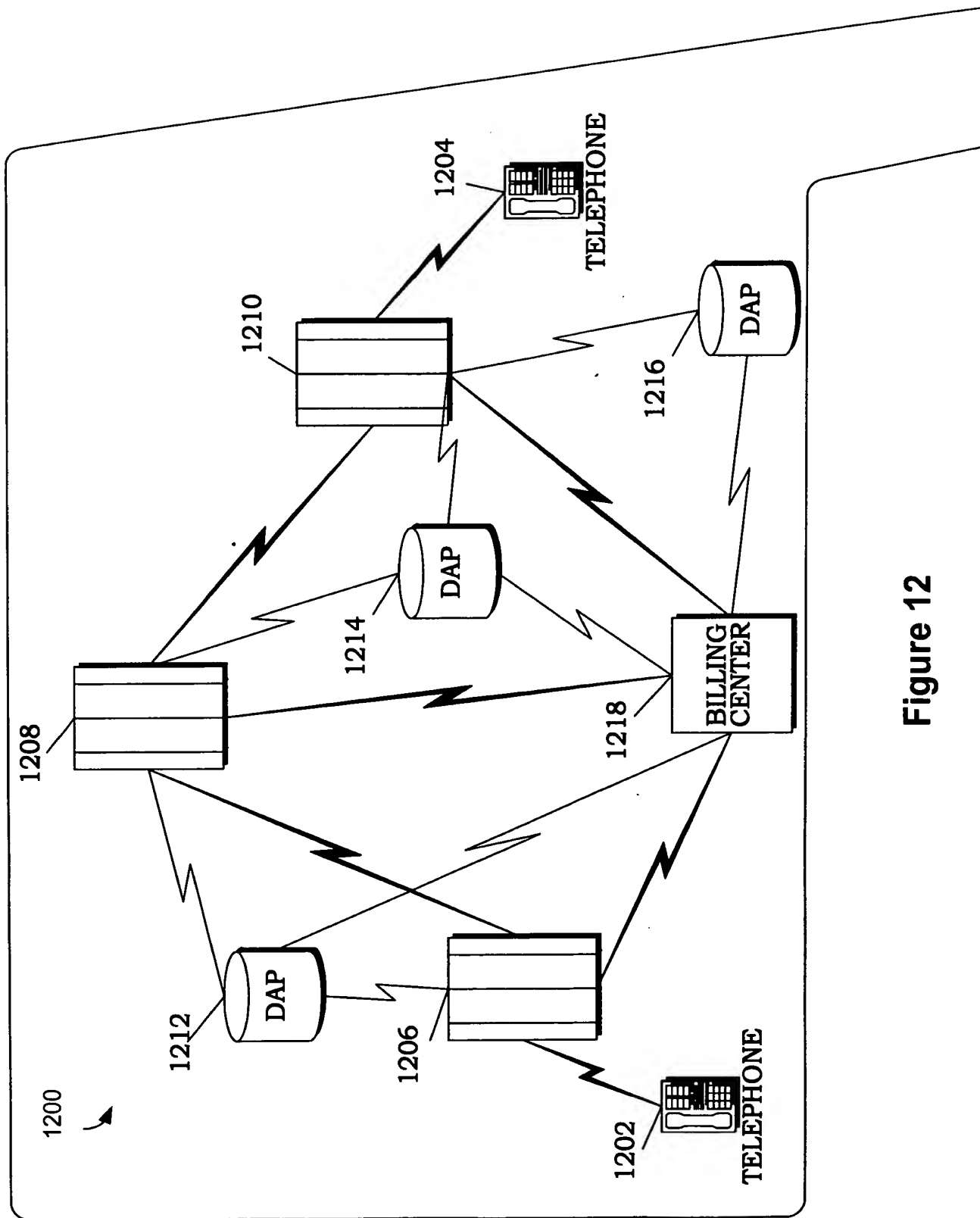


Figure 12

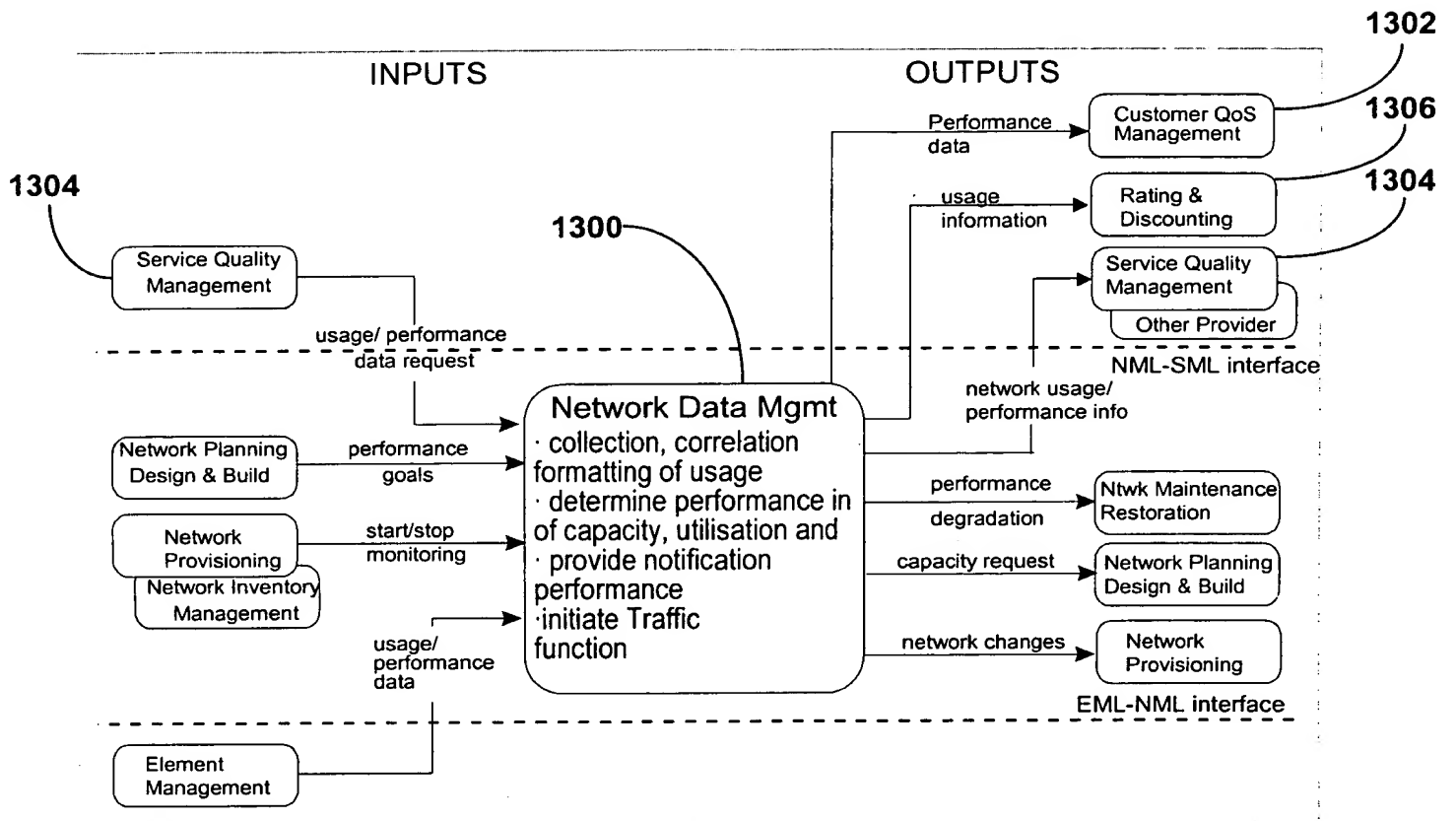


Figure 13

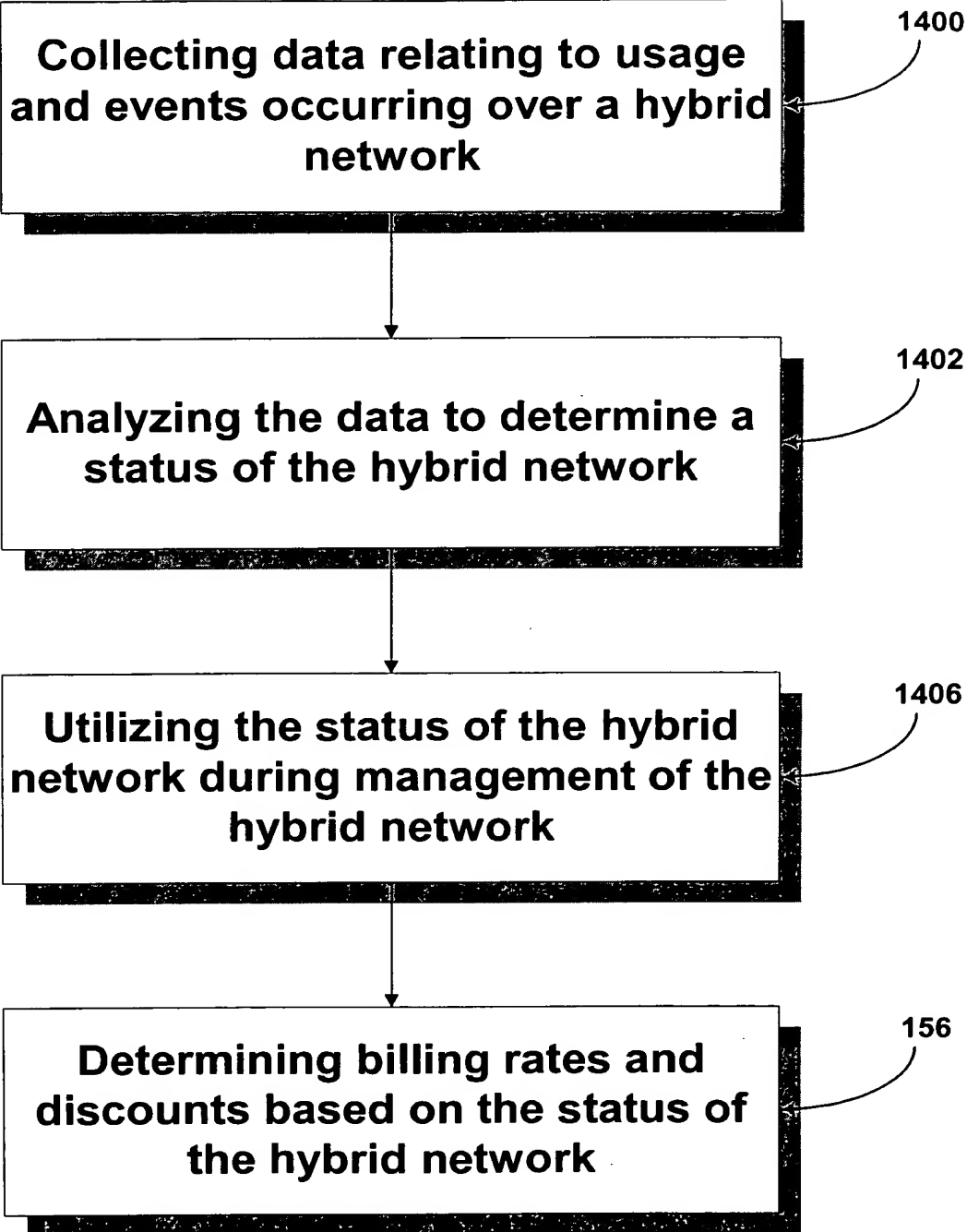


Figure 14

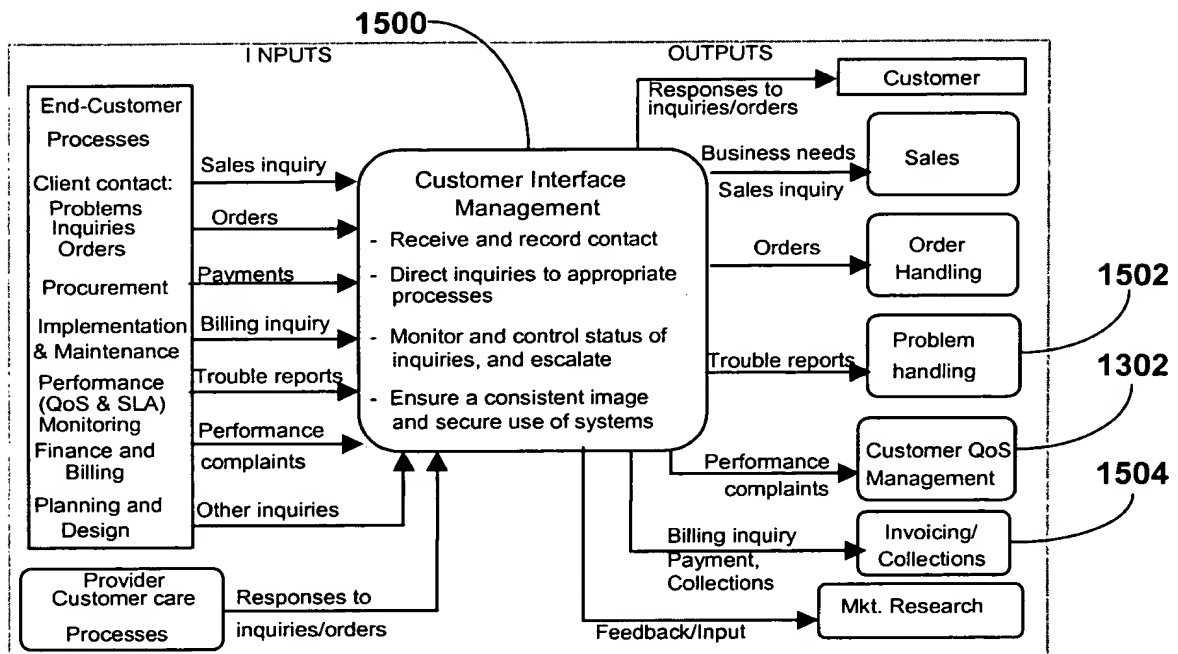


Figure 15

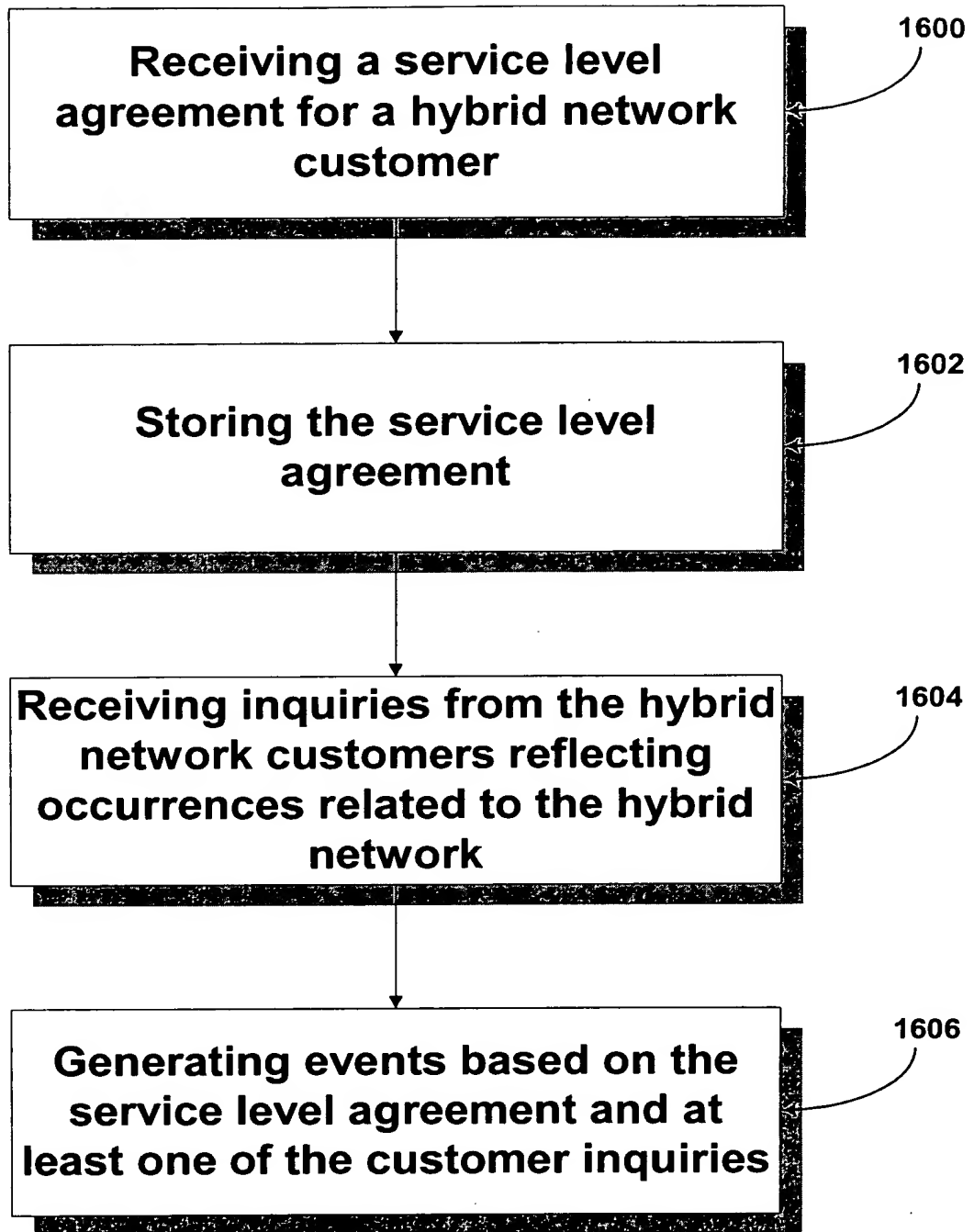


Figure 16

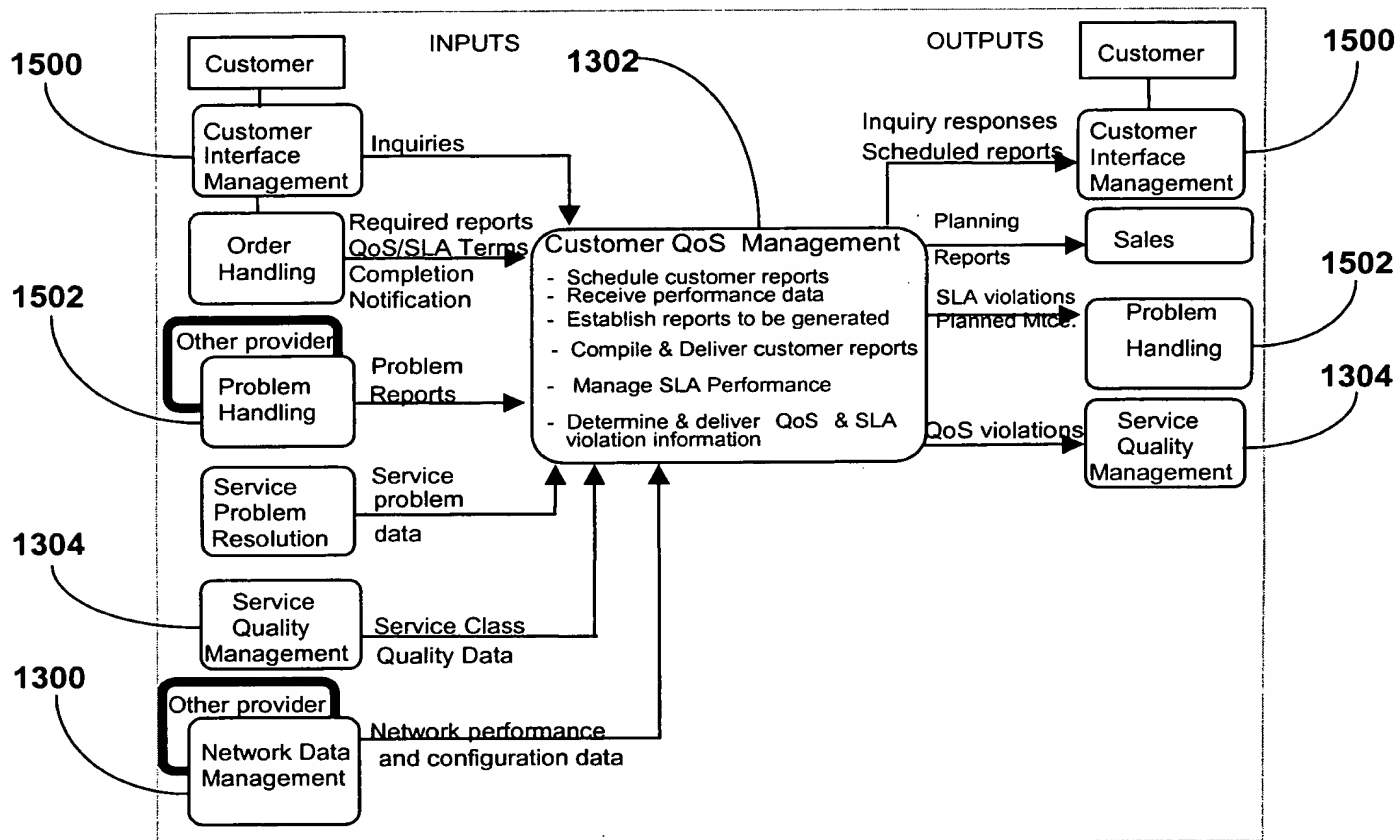


Figure 17

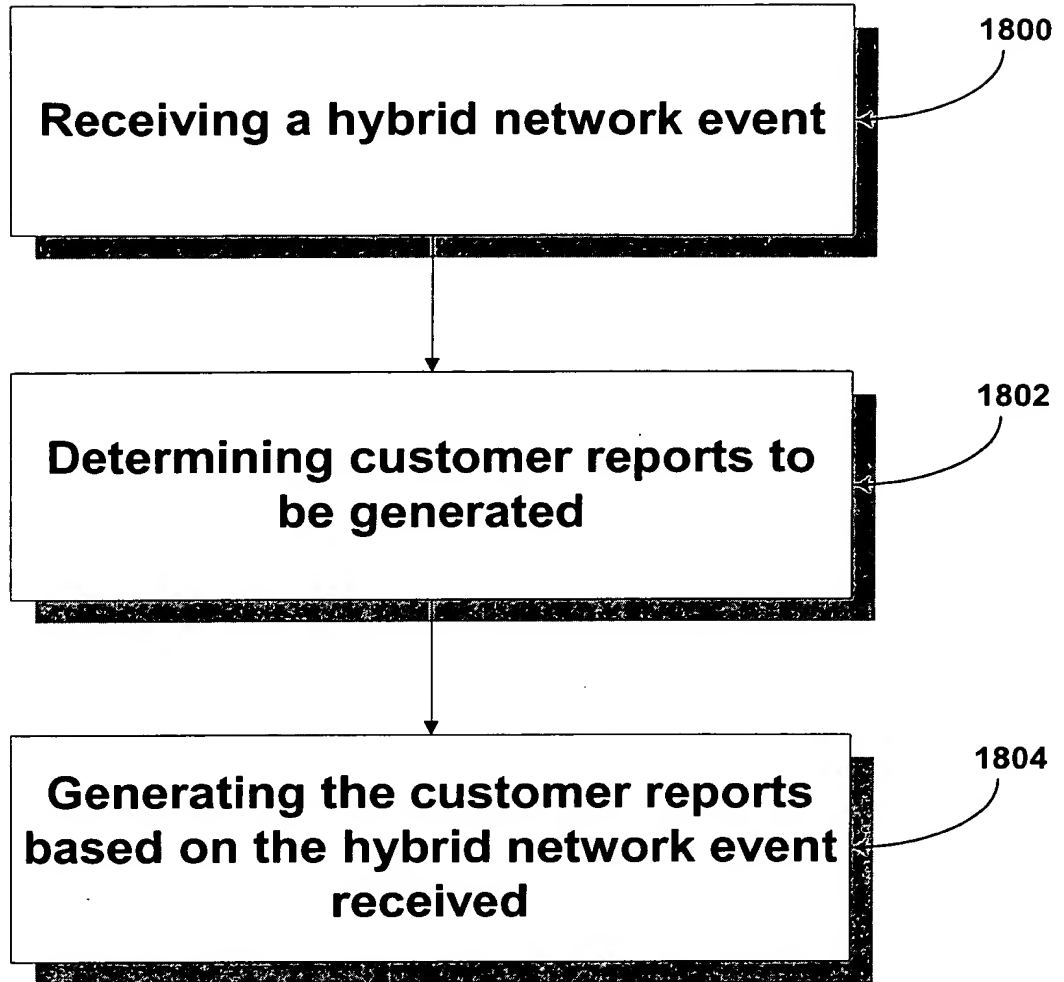


Figure 18

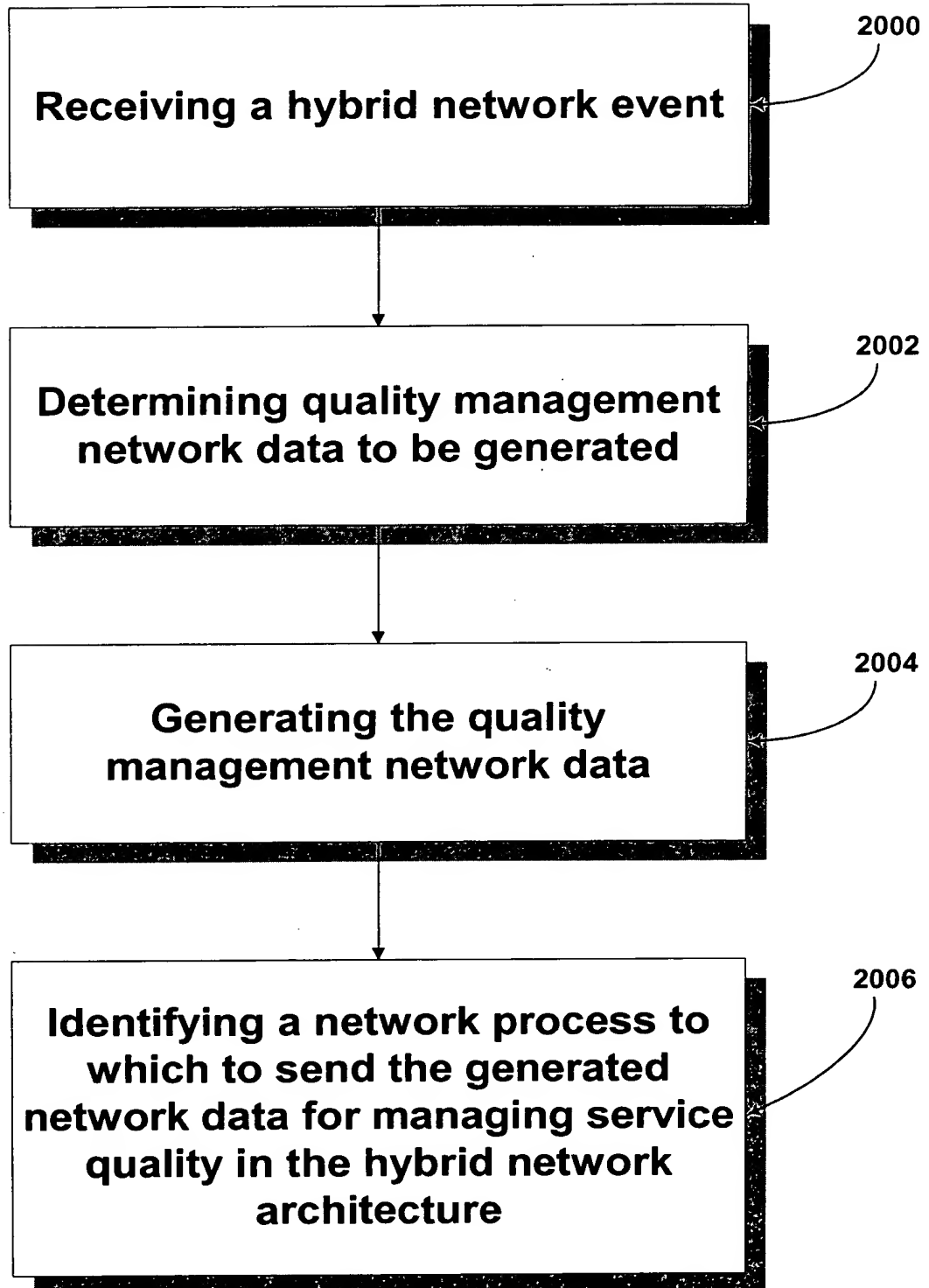


Figure 20

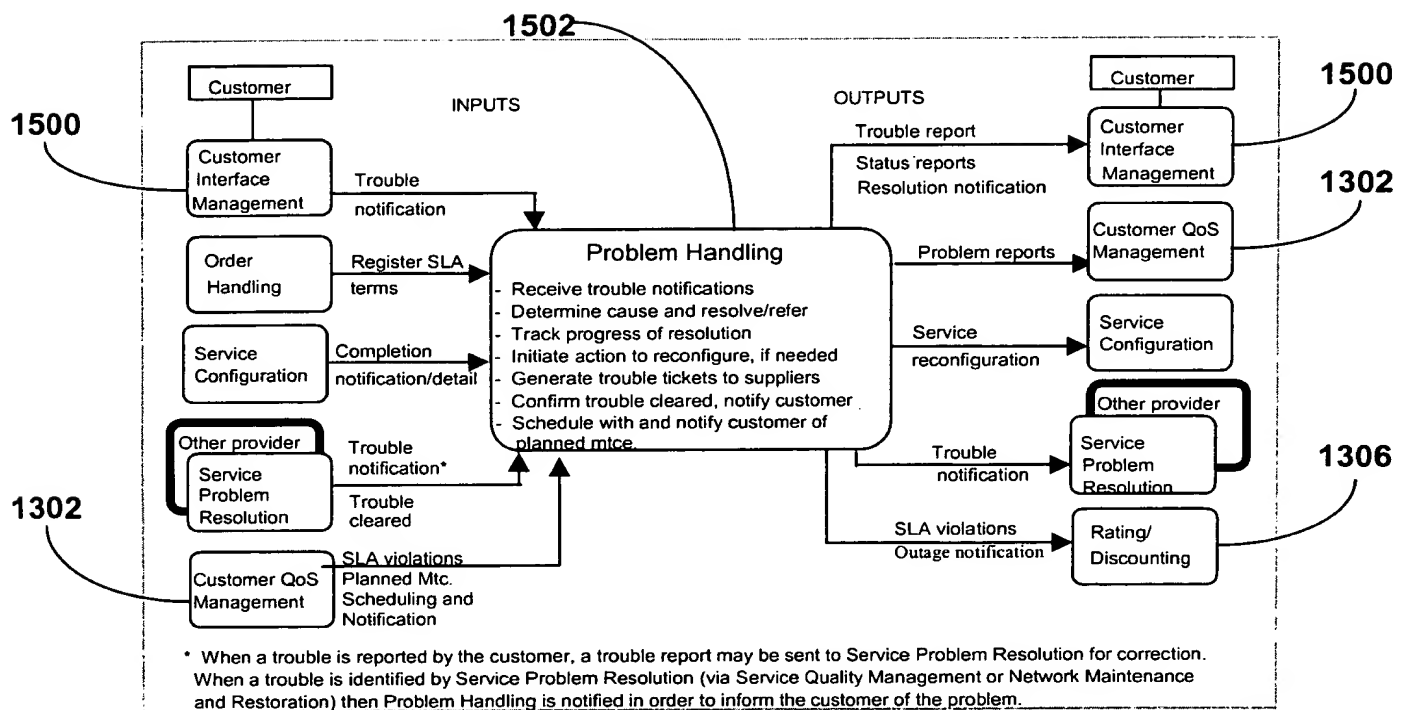


Figure 21

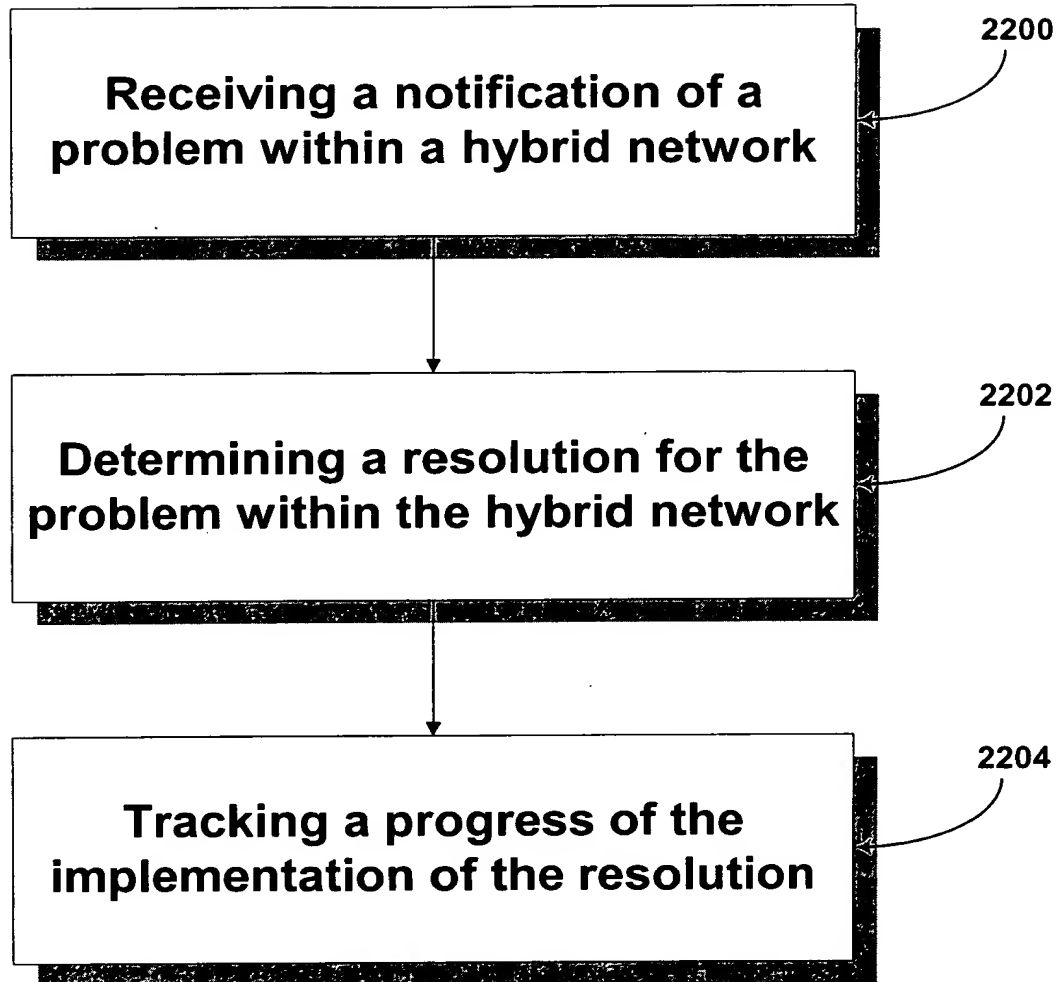


Figure 22

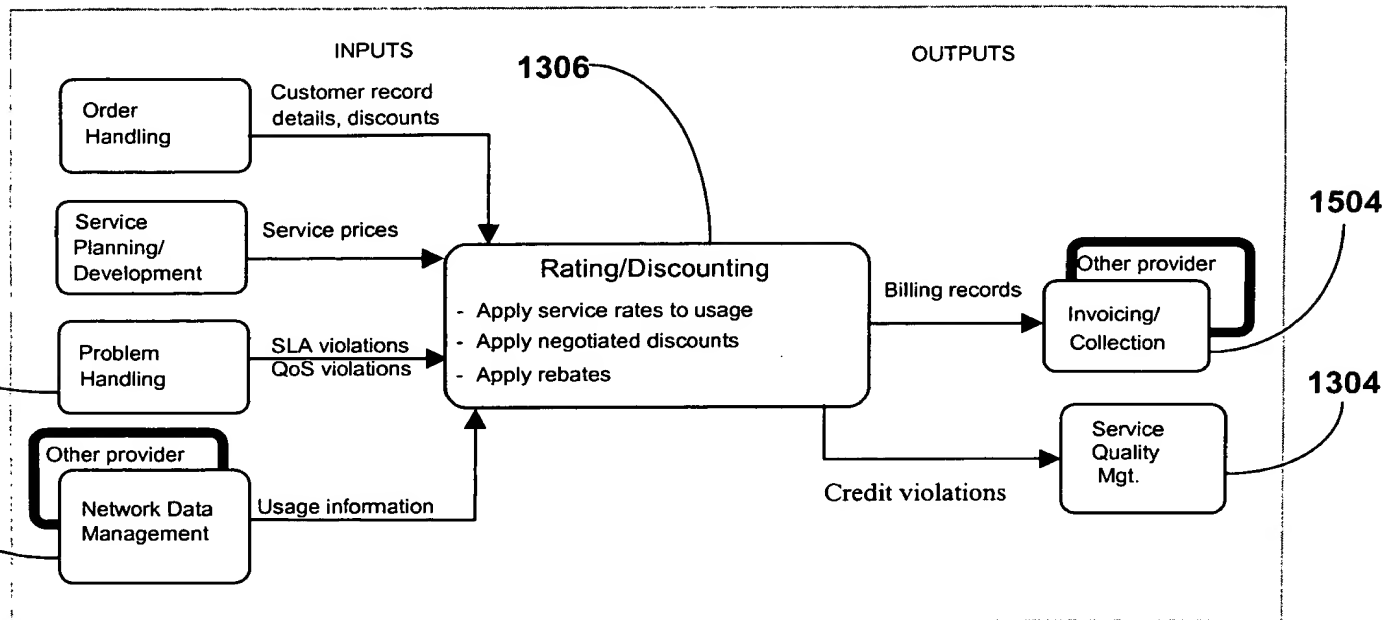


Figure 23

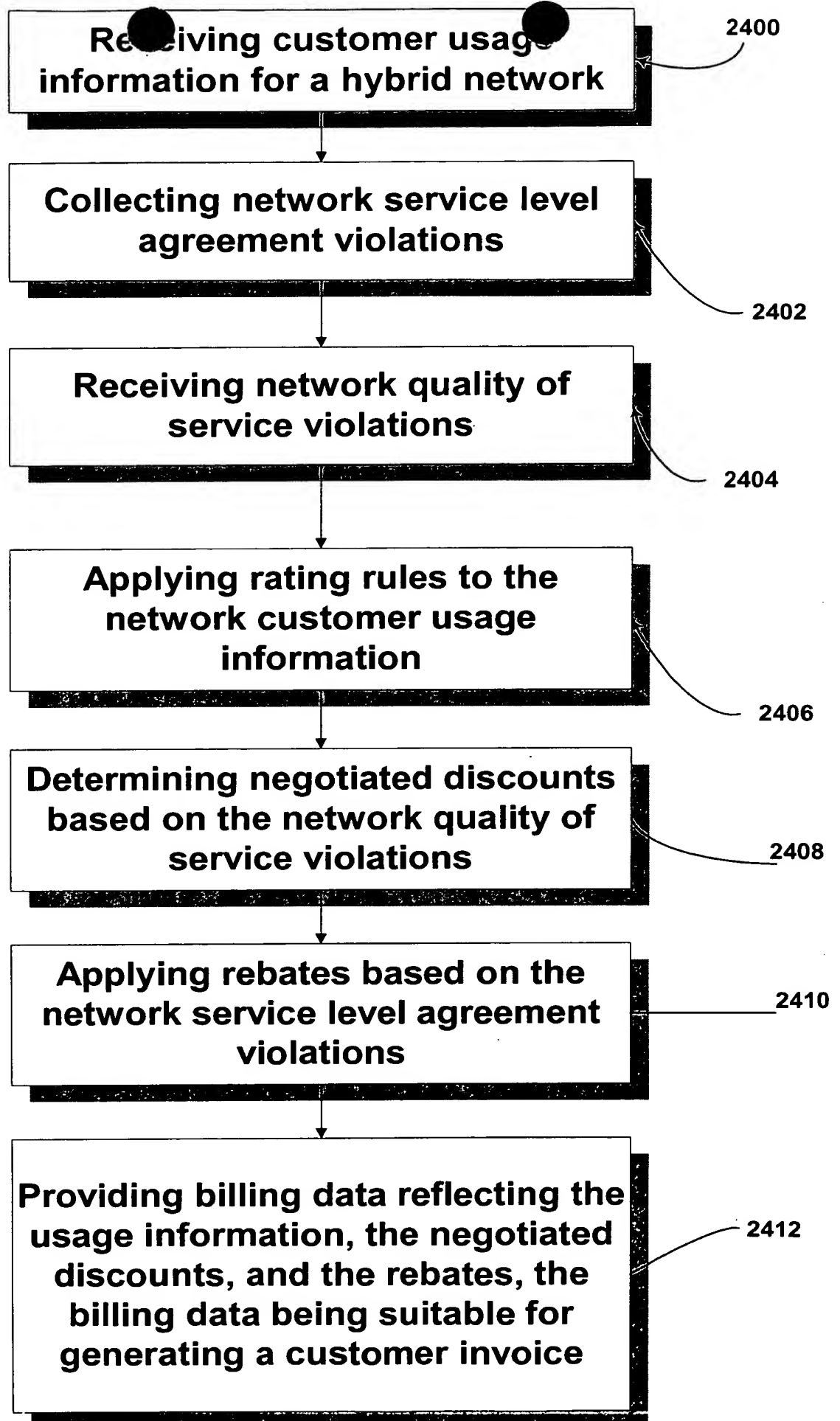


Figure 24

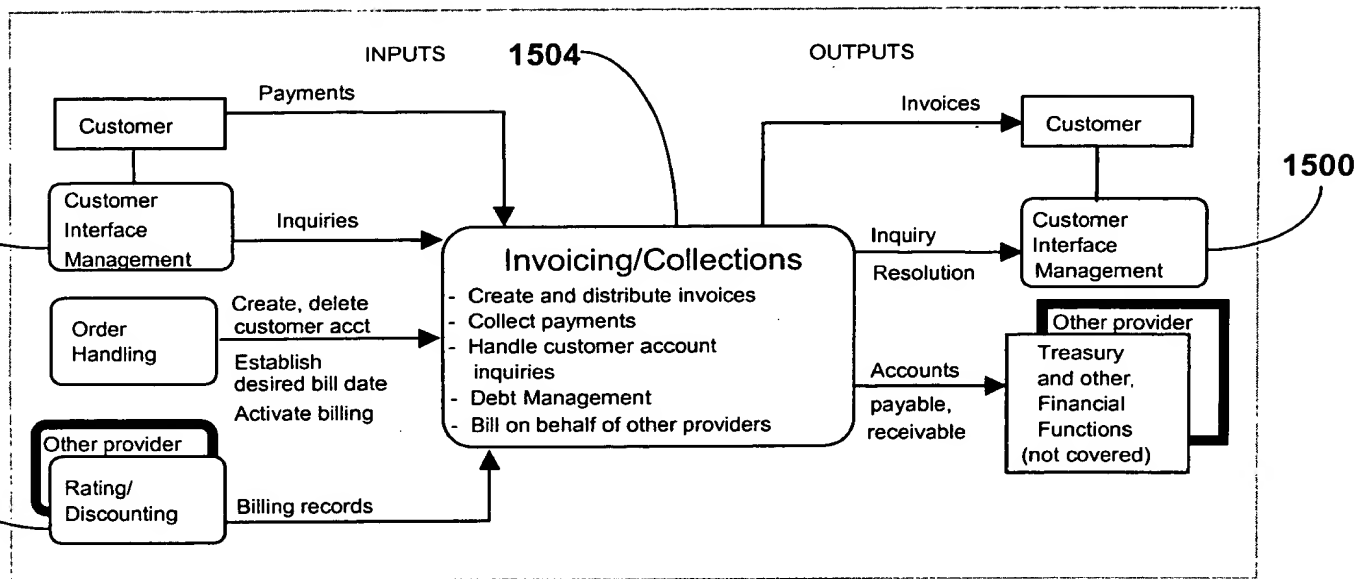


Figure 25

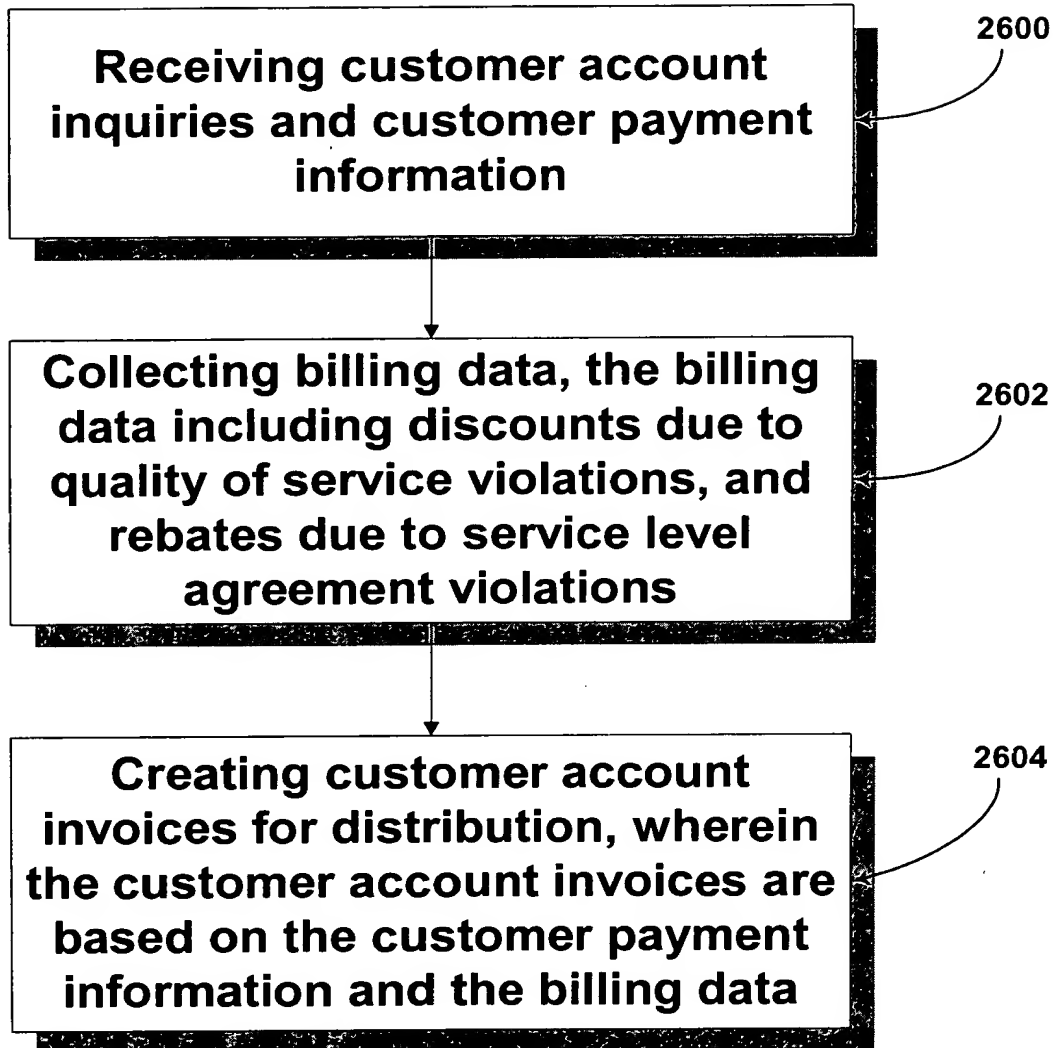


Figure 26

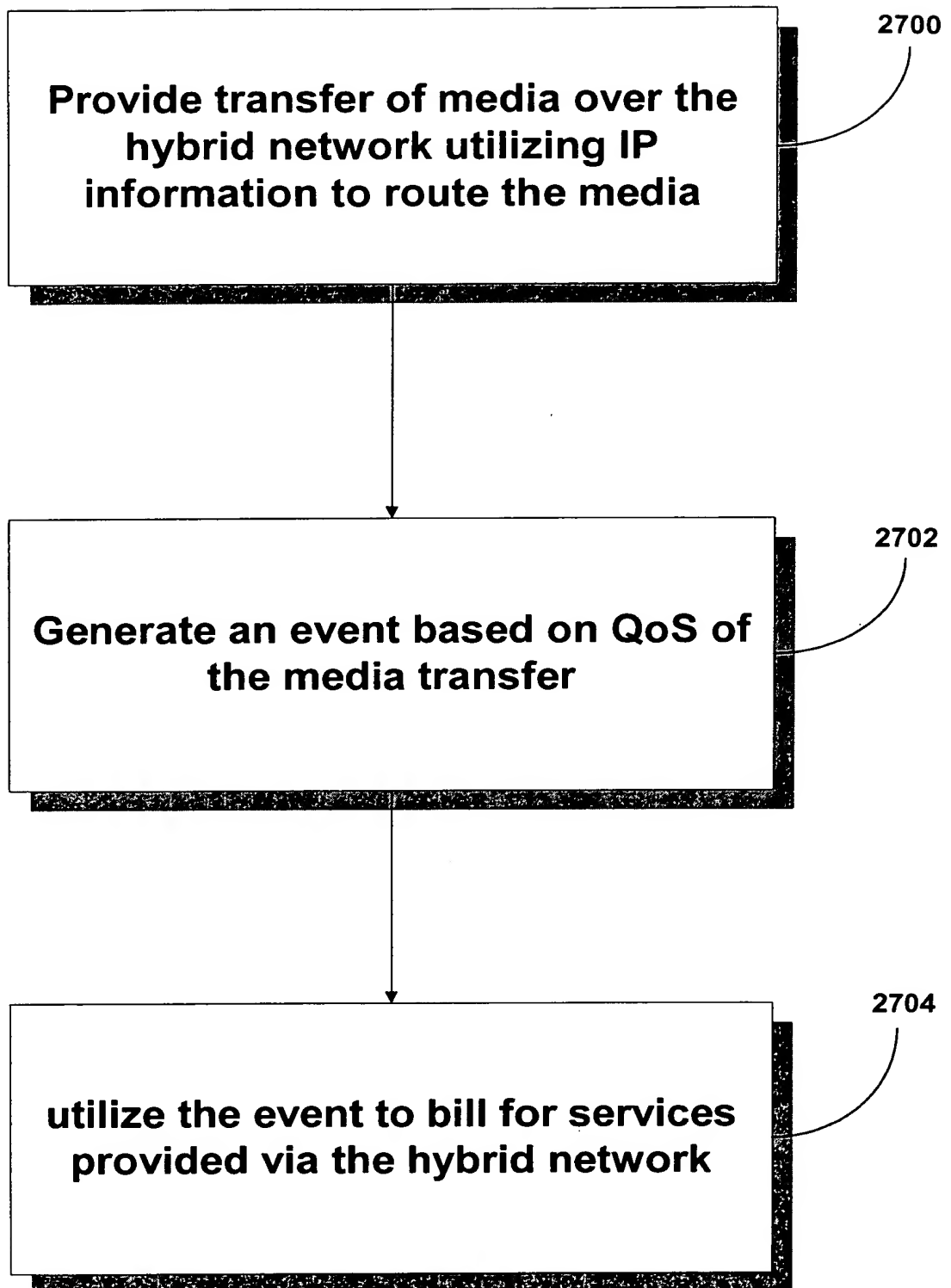


Figure 27

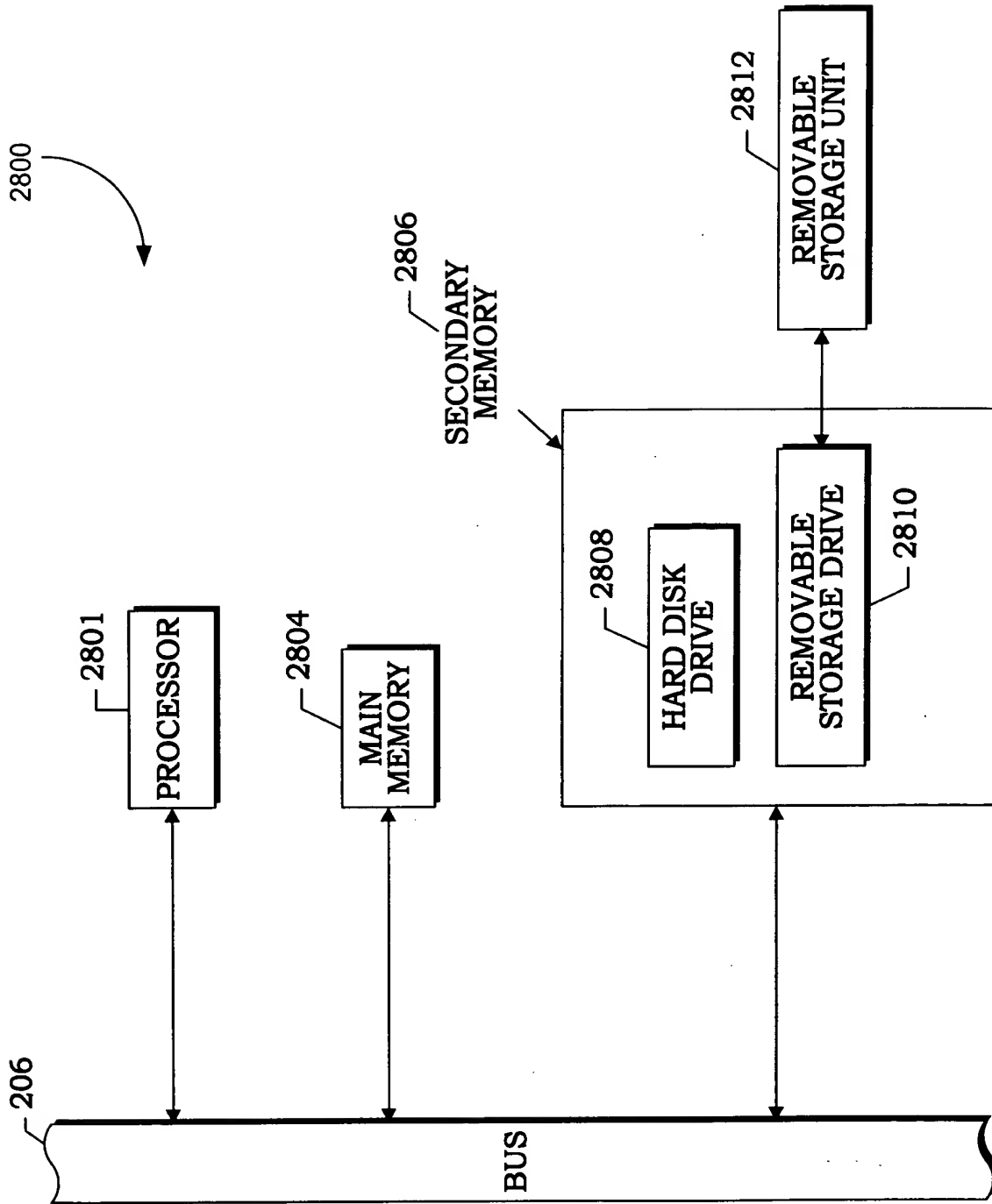


Figure 28

MSB										LSB							
BITS 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15																	
WORD	00	CR ID						CD ID									
	01	TP1 BITS 0-15															
	02	TP1 BITS 16-31															
	03	TP3 BITS 0-12												TP6 0-2			
	04	TP6 BITS 3-12									TP7 BITS 0-5						
	05	TP7 BITS 6-21															
	06	OPL. ORIGINATING PORT 0-15															
	07	OP	TPL. TERMINATING PORT 0-14														
	08	TP	OTG. ORIGINATING TRUNK GROUP												TT		
	09	TERMINATING TRUNK GROUP (1-12)												TP3Q			
	10	TP6Q	ACTION CODE					OTC				TTC					
	11	ID1			ID2			ANI INDEX									
	12	CLI 1			CLI 2			CLI 3				CLI 4					
	13	CLI 5			CLI 6			CLI 7				CLI 8					
	14	CLI 9			CLI 10			A1				A2					
	15	A3			A4			A5				A6					
	16	A7			A8			A9				A10					
	17	A11			A12			A13				A14					
	18	A15			A16			A17				A18					
	19	A19			A20			A21				A22					
	20	D1			D2			D3				D4					
	21	D5			D6			D7				D8					
	22	D9			D10			D11				D12					
	23	D13			D14			D15				D16					
	24	D17			PTD1			PTD2				PTD3					
	25	PTD4			PTD5			PTD6				PTD7					
	26	PTD8			PTD9			PTD10									
	27	FC			TMC			KAT				TP7Q					
	28	EC, ENTRY CODE						PD			ND ID			DIVID			
	29	D0		CC	IN		SC	CD	DE	DT			SA	NOCLI			
	30	CN1				CN2			CN3				CN4				
	31	ACIF				SS7 RELEASE CODE						NCIDSEQ		NL	RS		
BIT 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15																	

Figure 29

MSB											LSB						
BITS 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15																	
WORD	00	CR ID						CD ID									
	01	TP1 BITS 0-15															
	02	TP1 BITS 16-31															
	03	TP3 BITS 0-12												TP6 0-2			
	04	TP6 BITS 3-12									TP7 BITS 0-5						
	05	TP7 BITS 6-21															
	06	OPL. ORIGINATING PORT 0-15															
	07	OP	TPL. TERMINATING PORT 0-14														
	08	TP	OTG. ORIGINATING TRUNK GROUP												TT		
	09	TERMINATING TRUNK GROUP (1-12)												TP3Q			
	10	TP6Q	ACTION CODE						OTC				TTC				
	11	ID1			ID2			ANI INDEX									
	12	CLI 1			CLI 2			CLI 3				CLI 4					
	13	CLI 5			CLI 6			CLI 7				CLI 8					
	14	CLI 9			CLI 10			CLI11				CLI12					
	15	CLI13			CLI14			CLI15				A1					
	16	A2			A3			A4				A5					
	17	A6			A7			A8				A9					
	18	A10			A11			A12				A13					
	19	A14			A15			A16				A17					
	20	A18			A19			A20				A21					
	21	A22			A23			A24				A25					
	22	A26			A27			A28				A29					
	23	A30			A31			A32				A33					
	24	A34			A35			A36				A37					
	25	A38			A39			A40				A41					
	26	A42			A43			A44				A45					
	27	FC			TMC			KAT				TP7Q					
	28	EC, ENTRY CODE						PD		ND ID			DIVID				
	29	D0	MN	CC	IN		SC	CD	DE	DT		SA	NOCLI				
	30	CN1			CN2			CN3					CN4				
	31	ACIF			SS7 RELEASE CODE							NCIDSEQ			NL	RS	
BIT 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15																	

Figure 30

MSB											LSB						
BITS		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD	32																
	33																
	34	ID1				ID2				ID3				ID4			
	35	ID5				ID6				ID7				ID8			
	36	ID9				ID10				ID11				ID12			
	37	ID13				ID14				ID15				ID16			
	38	ID17				ID18				ID19				ID20			
	39	ID21				ID22				ID23				ID24			
	40	ID25				PTD1				PTD2				PTD3			
	41	PTD4				PTD5				PTD6				PTD7			
	42	PTD8				PTD9				PTD10				PTD11			
	43	PTD12				PTD13				PTD14				PTD15			
	44	EIR CALL TYPE								OVFAL						CB	
	45	OVFCL				DTA 1				DTA 2				DTA 3			
	46	DTA 4				DTA 5				DTA 6				DTA 7			
	47	DTA 8				DTA 9				DTA 10				DTA 11			
	48	DTA 12				DTA 13				DTA 14				DTA 15			
	49	OVFC						DTAC								NCID	
	50	NETWORK CALL IDENTIFIER (NCID)															
	51	NETWORK CALL IDENTIFIER (NCID)															
	52	NETWORK CALL IDENTIFIER (NCID)															
	53	NETWORK CALL IDENTIFIER (NCID)															
	54	NETWORK CALL IDENTIFIER (NCID)															
	55																
	56																
	57																
	58																
	59													OUS TYPE		OUIE	
	60	OUIE COUNT CONT.												OVFCS			
	61	ORIGINATING NX64 BITMAP (1-16)															
	62	ORIG NX64 BITMAP(17-24)								TERM NX64 BITMAP(17-24)							
	63	TERMINATING NX64 BITMAP(9-24)															
BIT		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

Figure 31

MSB																LSB																	
BITS		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15																
WORD	00	CR ID								CD ID																							
	01	TP1 BITS 0-15																															
	02	TP1 BITS 16-31																															
	03	TP4 BITS 0-12																								TP6 0-2							
	04	TP6 BITS 3-12																TP7 BITS 0-5															
	05	TP7 BITS 6-21																															
	06	OPL. ORIGINATING PORT 0-15																															
	07	OP		TPL. TERMINATING PORT 0-14																													
	08	TP		OTG. ORIGINATING TRUNK GROUP																												TT	
	09	TERMINAGING TRUNK GROUP (1-12)																								TP3Q							
	10	TP6Q		ACTION CODE										OTC								TTC											
	11	ID1				ID2								ONACC								TNACC											
	12	CLI 1				CLI 2								CLI 3								CLI 4											
	13	CLI 5				CLI 6								CLI 7								CLI 8											
	14	CLI 9				CLI 10								A1								A2											
	15	A3				A4								A5								A6											
	16	A7				A8								A9								A10											
	17	A11				A12								A13								A14											
	18	A15				A16								A17								A18											
	19	A19				A20								A21								A22											
	20	D1				D2								D3								D4											
	21	D5				D6								D7								D8											
	22	D9				D10								D11								D12											
	23	D13				D14								D15								D16											
	24	D17				OPIN																											
	25	OPIN		TPS BITS 0-12																													
	26	RN1				RN2								RN3								RN4											
	27	FC				TMC								KAT								TP7Q											
	28	EC, ENTRY CODE												PD				ND ID				DIVID											
	29	D0		CC		IN		SC		CD		DE		DT		PP		XC		SA		NOCLI											
	30	CN1				CN2								CN3								CN4											
	31	ACIF				SS7 RELEASE CODE																NCIDSEQ				NL		RS					
BITS		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15																

Figure 32

MSB																LSB															
BITS																00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD		00	CR ID										CD ID																		
		01	TP1 BITS 0-15																												
		02	TP1 BITS 16-31																												
		03	TP4 BITS 0-12												TP6 0-2																
		04	TP6 BITS 3-12										TP7 BITS 0-5																		
		05	TP7 BITS 6-21																												
		06	OPL. ORIGINATING PORT 0-15																												
		07	OP	TPL. TERMINATING PORT 0-14																											
		08	TP	OTG. ORIGINATING TRUNK GROUP												TT															
		09	TERMINAGING TRUNK GROUP (1-12)												TP3Q																
		10	TP6Q	ACTION CODE						OTC				TTC																	
		11	ID1				ID2				ONACC				TNACC																
		12	CLI 1				CLI 2				CLI 3				CLI 4																
		13	CLI 5				CLI 6				CLI 7				CLI 8																
		14	CLI 9				CLI 10				CLI 11				CLI 12																
		15	CLI 13				CLI 14				CLI 15				A1																
		16	A2				A3				A4				A5																
		17	A6				A7				A8				A9																
		18	A10				A11				A12				A13																
		19	A14				A15				A16				A17																
		20	A18				A19				A20				A21																
		21	A22				A23				A24				A25																
		22	A26				A27				A28				A29																
		23	A30				A31				A32				A33																
		24	A34				A35				A36				A37																
		25	A38				A39				A40				A41																
		26	A42				A43				A44				A45																
		27	FC				TNC				KAT				TF7Q																
		28	EC, ENTRY CODE								PD				ND ID				DIVID												
		29	DO	MM	CC	IN			SC	CD	DE	DT	PP	XC	SA	NOCLI															
		30	CN1				CN2				CN3				CN4																
		31	ACIF				SS7 RELEASE CODE								NCIDSEQ				NL	RS											
BITS																00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
EOSR/EPOSR FORMAT																															

EOSR/EOSR FORMAT

Figure 33

MSB										LSB						
BITS	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
32	T&C GUEST 1								T&C GUEST 2							
33	T&C GUEST 3								T&C GUEST 4							
34	ID1				ID2				ID3				ID4			
35	ID5				ID6				ID7				ID8			
36	ID9				ID10				ID11				ID12			
37	ID13				ID14				ID15				ID16			
38	ID17				ID18				ID19				ID20			
39	ID21				ID22				ID23				ID24			
40	ID25				PTD1				PTD2				PTD3			
41	PTD4				PTD5				PTD6				PTD7			
42	PTD8				PTD9				PTD10				PTD11			
43	PTD12				PTD13				PTD14				PTD15			
44	EIR CALL TYPE								OVFAL						CB	
45	OVFCL				DTA 1				DTA 2				DTA 3			
46	DTA 4				DTA 5				DTA 6				DTA 7			
47	DTA 8				DTA 9				DTA 10				DTA 11			
48	DTA 12				DTA 13				DTA 14				DTA 15			
49	OVFC						DTAC								NCID	
50	NETWORK CALL IDENTIFIER (NCID)															
51	NETWORK CALL IDENTIFIER (NCID)															
52	NETWORK CALL IDENTIFIER (NCID)															
53	NETWORK CALL IDENTIFIER (NCID)															
54	NETWORK CALL IDENTIFIER (NCID)															
55	T&C ROOM 1								T&C ROOM 2							
56	T&C ROOM 3								T&C ROOM 4							
57	T&C ROOM 5								T&C ROOM 6							
58	EAC1				EAC2				EAC3				EAC4			
59	EAC5				EAC6				EAC7				EAC8			
60	EAC9				EAC10				EAC11				EAC12			
61	OPIN													OVFCS		
62	TP5-OPERATOR RELEASE															
63	RN1				RN2				RN3				RN4			
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

Figure 34

MSB										LSB						
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD 00	CR ID				SYNC WORD (MINUS 2, OCTAL 7776)											
01	CDID, CALL DISCONNECT I.D. NUMBER (0-15)															
02	CDID, CALL DISCONNECT I.D. NUMBER (16-31)															
03	SWID 1				SWID 2				SWID 3							
04	ST-SWITCH TYPE								EQ-EVENT QUALIFIER							
05	SERIT-SER EVENT TIME (0-15)															
06	SERIT-SER EVENT TIME (16-31)															
07					FCDID-FIRST RECORD CDID (12 LSAs)											
08					LCDID-LAST RECORD CDID (12 LSAs)											
09					NCDID-NEXT RECORD CDID (12 LSAs)											
10	NBSN-NEMAS BLOCK SEQUENCE NUMBER															
11	PT-PREVIOUS TIME (0-15)															
12	PT-PREVIOUS TIME (16-31)															
13	SI	TIME OFFSET														
14																
15																
16	SOFTWARE LOAD ID1								SOFTWARE LOAD ID2							
17	SOFTWARE LOAD ID3								SOFTWARE LOAD ID4							
18	SOFTWARE LOAD ID5								SOFTWARE LOAD ID6							
19	LAST PATCHS/PR RLS1								LAST PATCHS/PR RLS2							
20	QCDR				QSCDR											
21	QPMR				QSPMR											
22	QOSR				QSOSR											
23	QPOSR				QSPOSR											
24	QSER				CNPN											
25	CDR THROTTLE START TIME (0-15)															
26	CDR THROTTLE START TIME (16-31)															
27	CDR THROTTLE STOP TIME (0-15)															
28	CDR THROTTLE STOP TIME (16-31)															
29													FORMAT VER.			
30	THROTTLE COUNT (0-15)															
31	THROTTLE COUNT (16-31)															
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

Figure 35

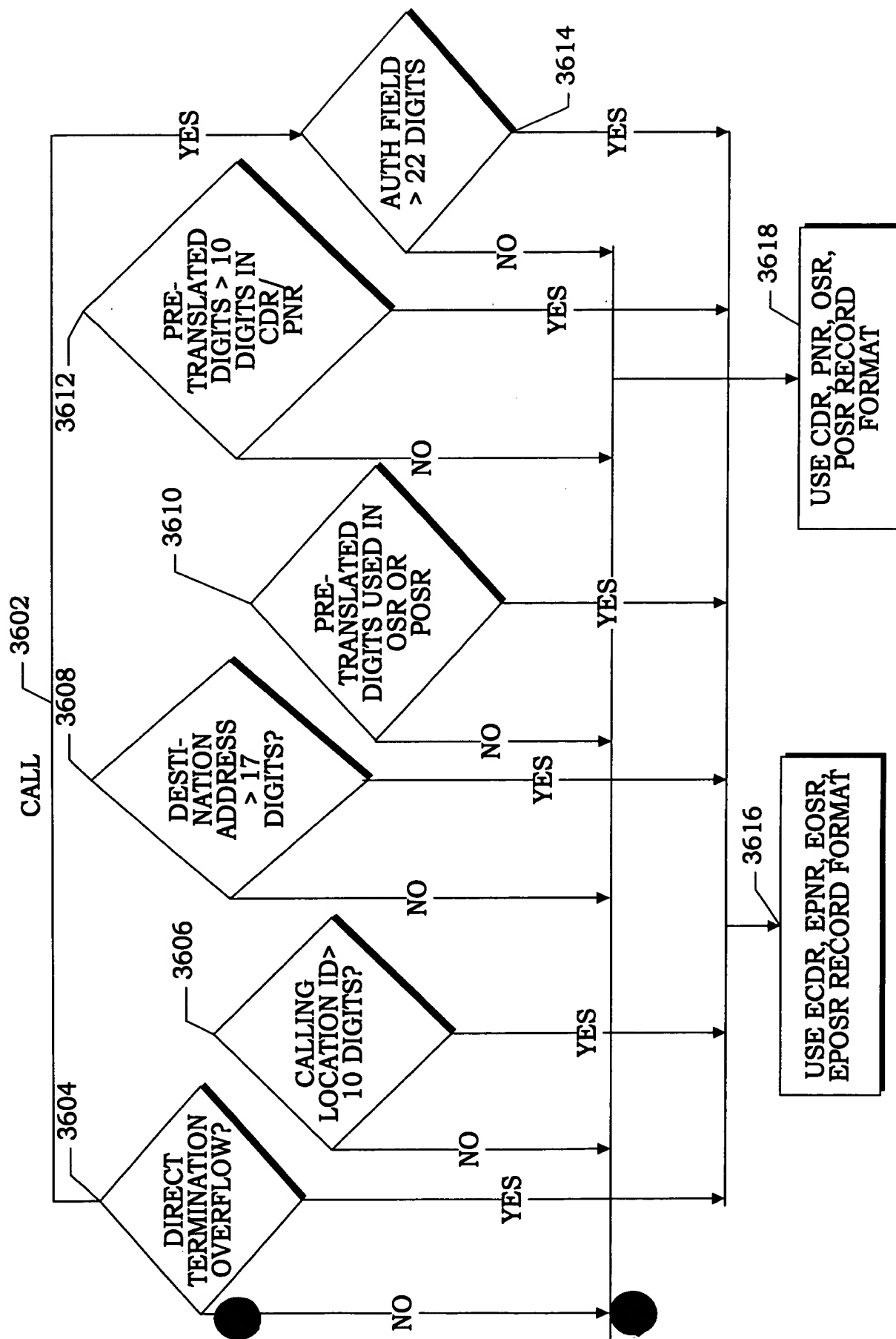


Figure 36

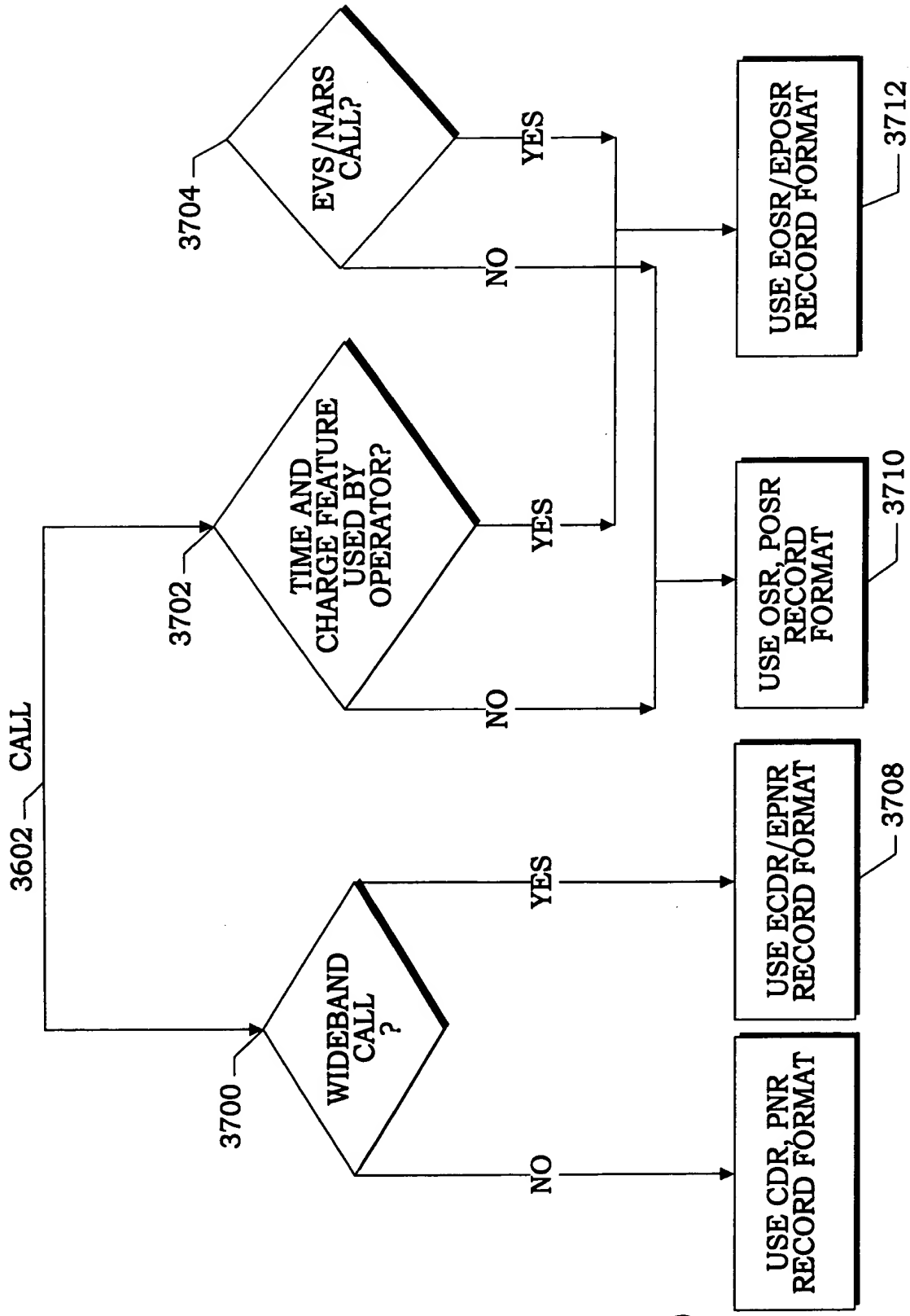


Figure 37

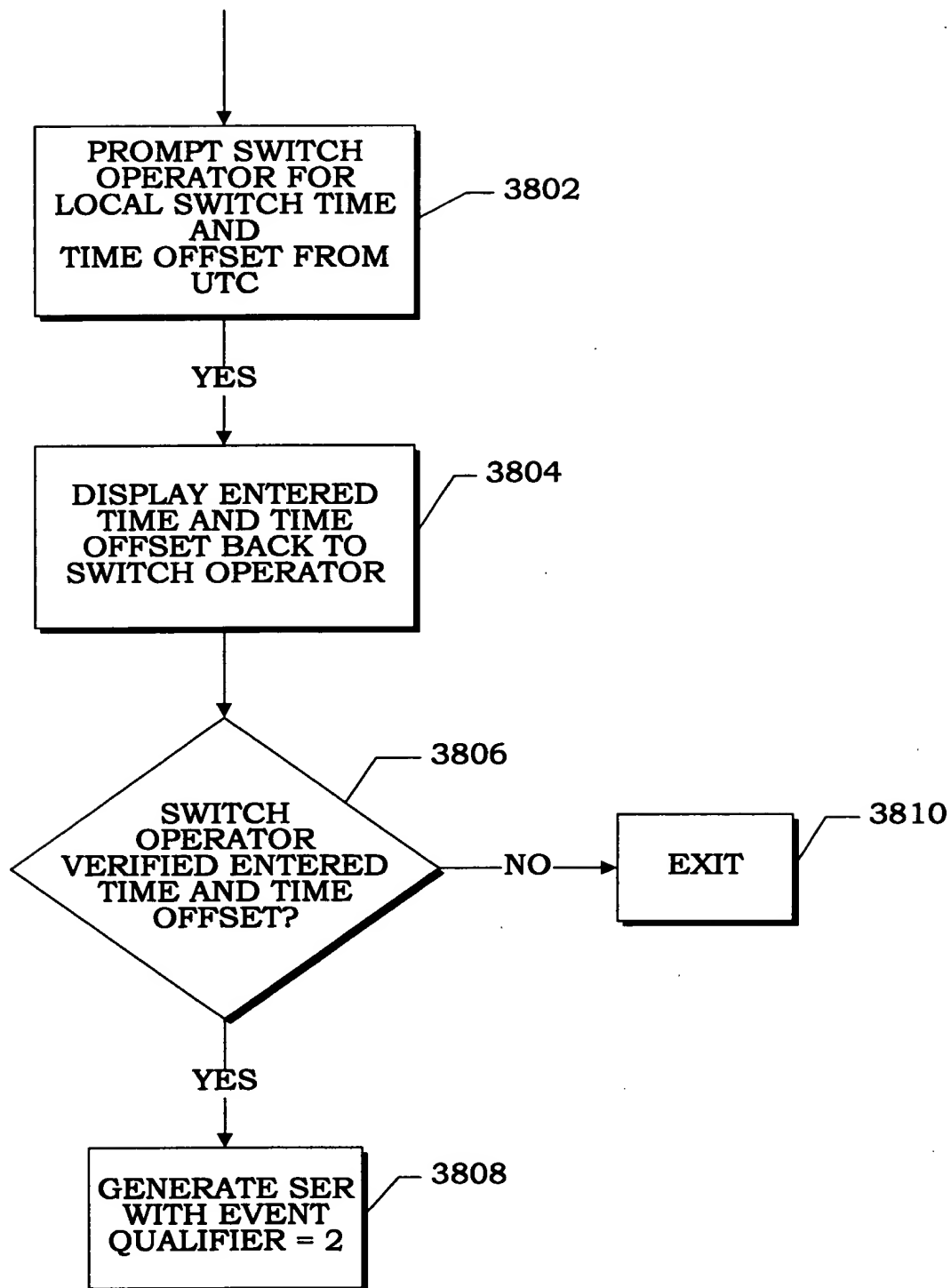


Figure 38

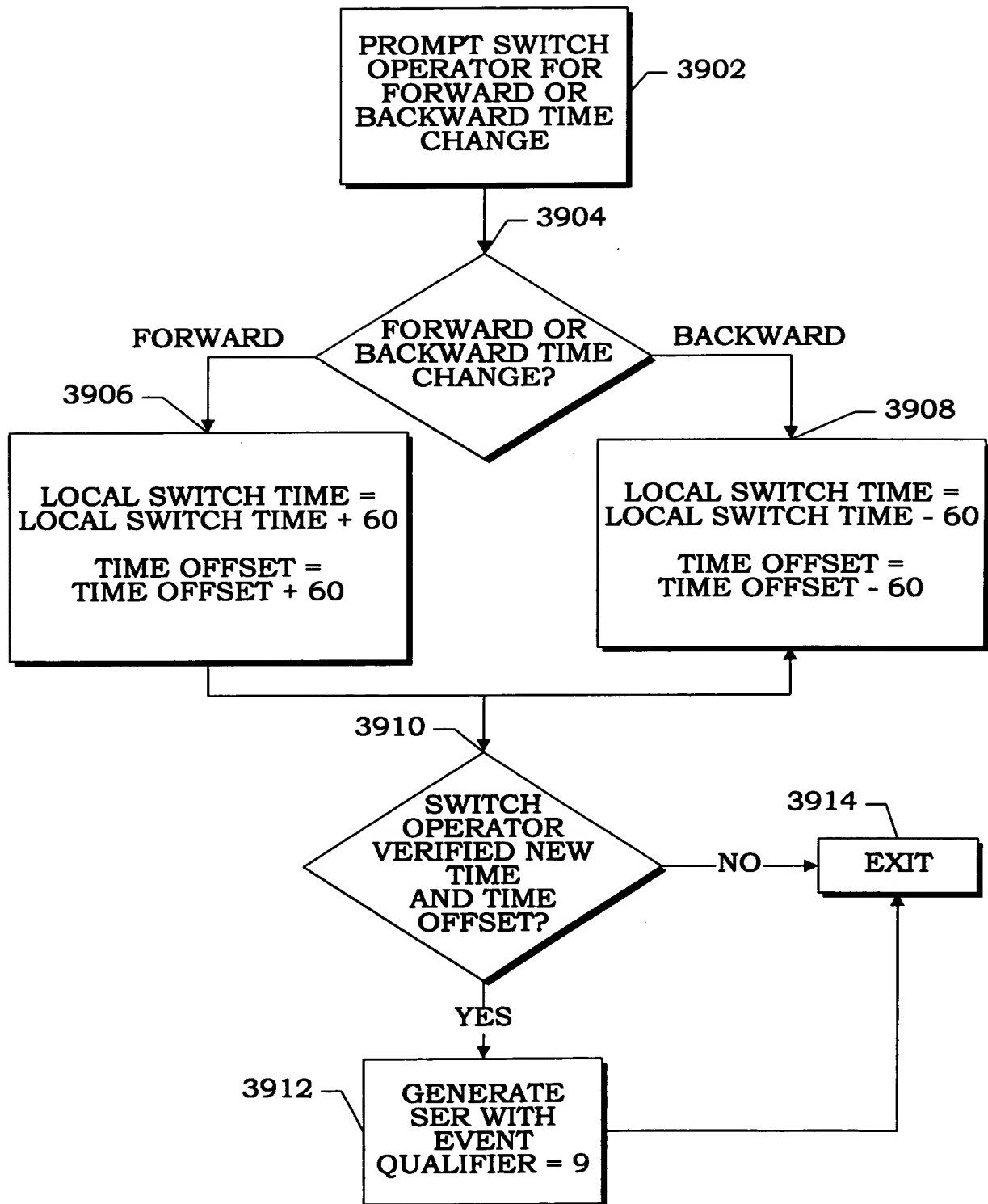


Figure 39

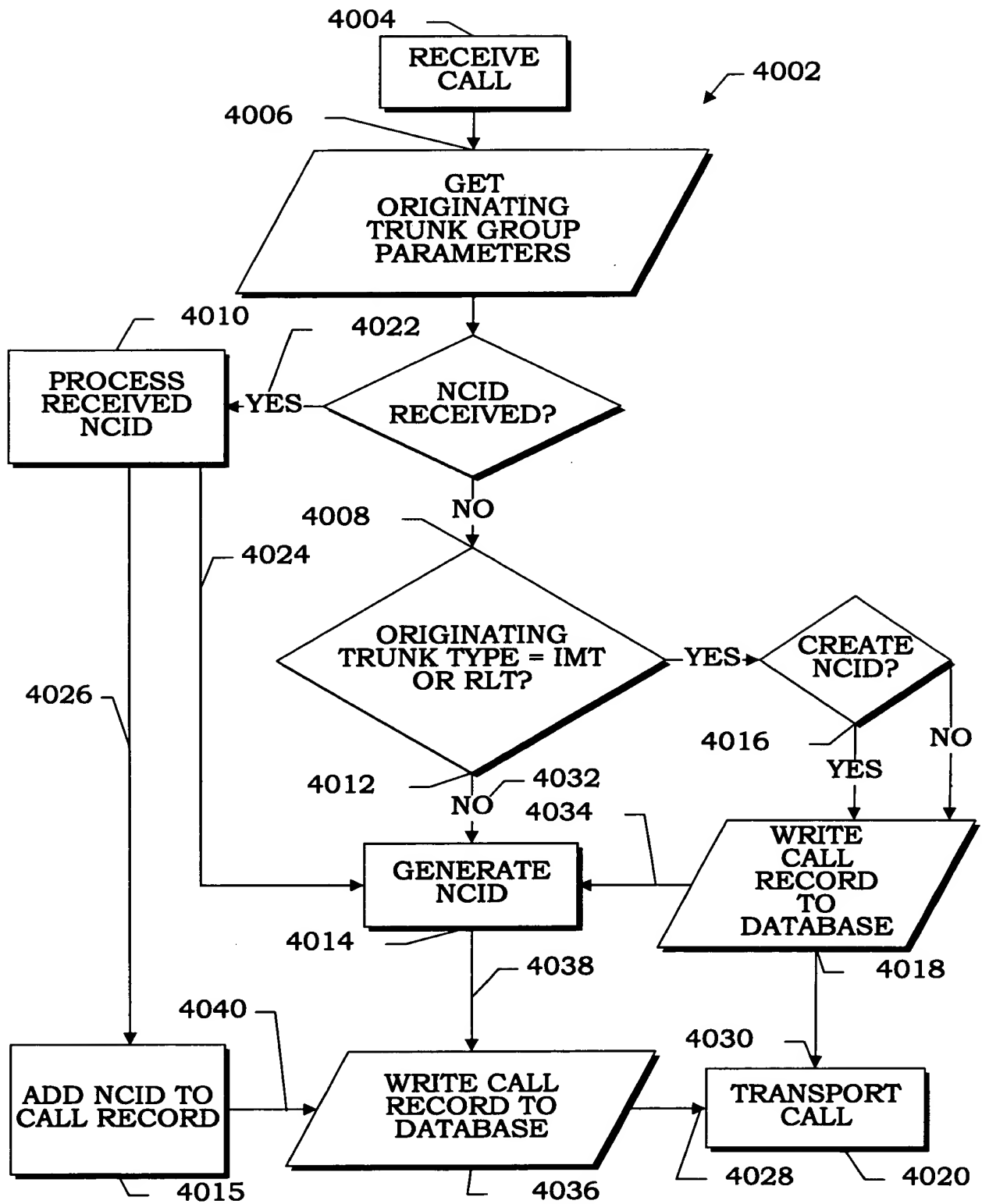


Figure 40

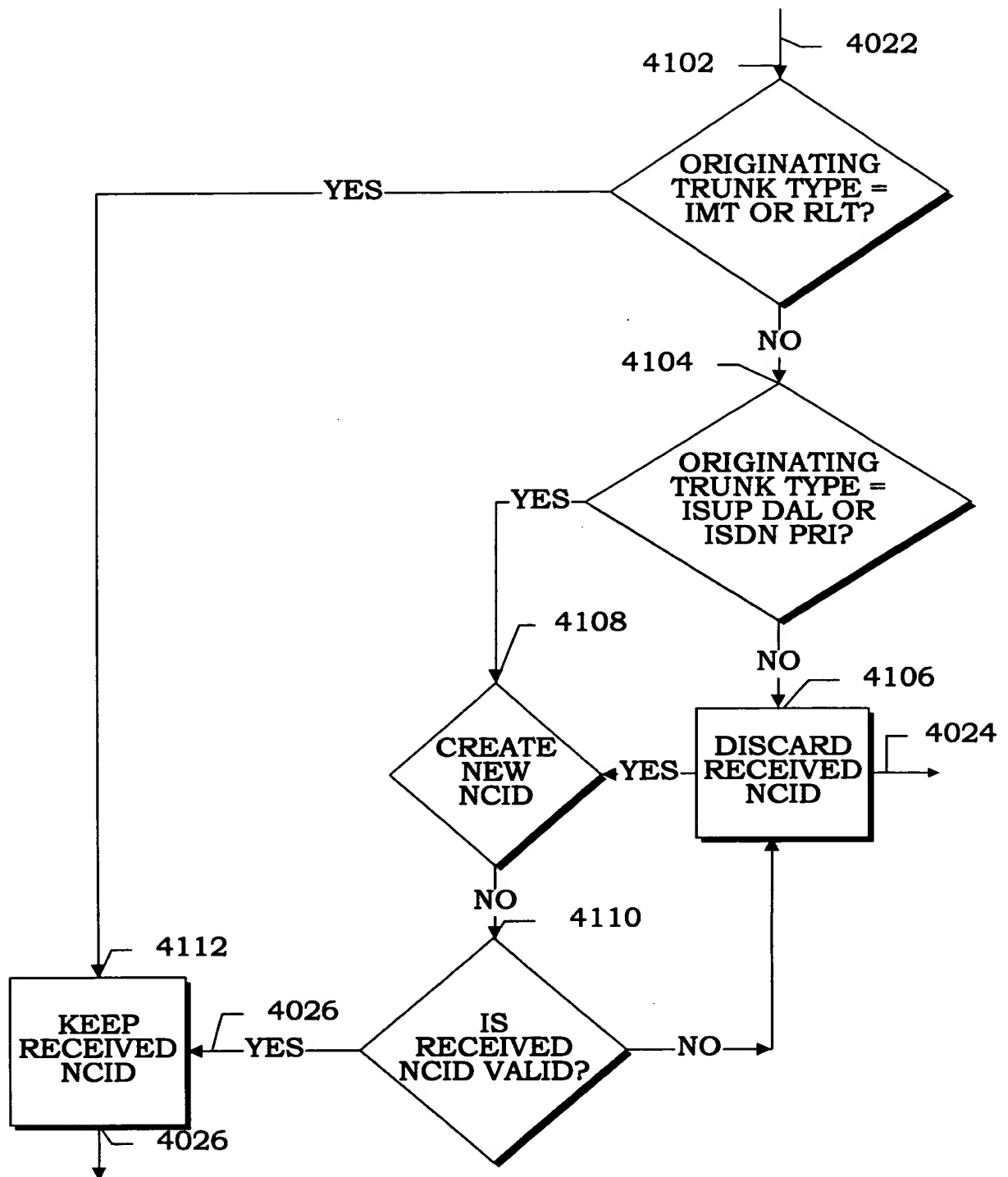


Figure 41

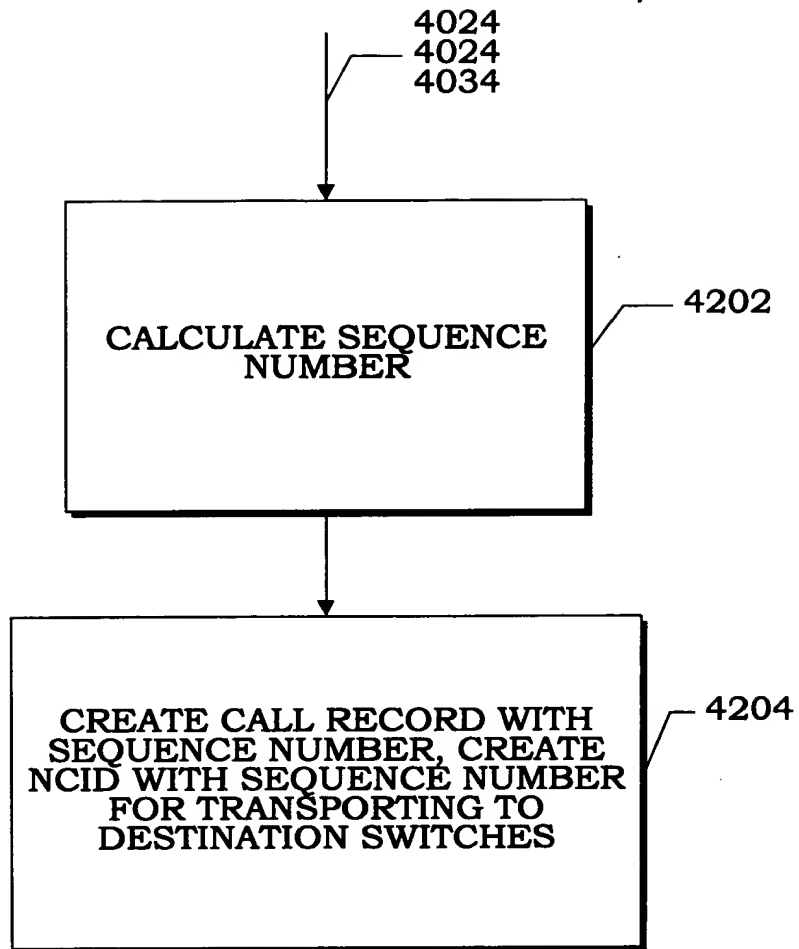


Figure 42

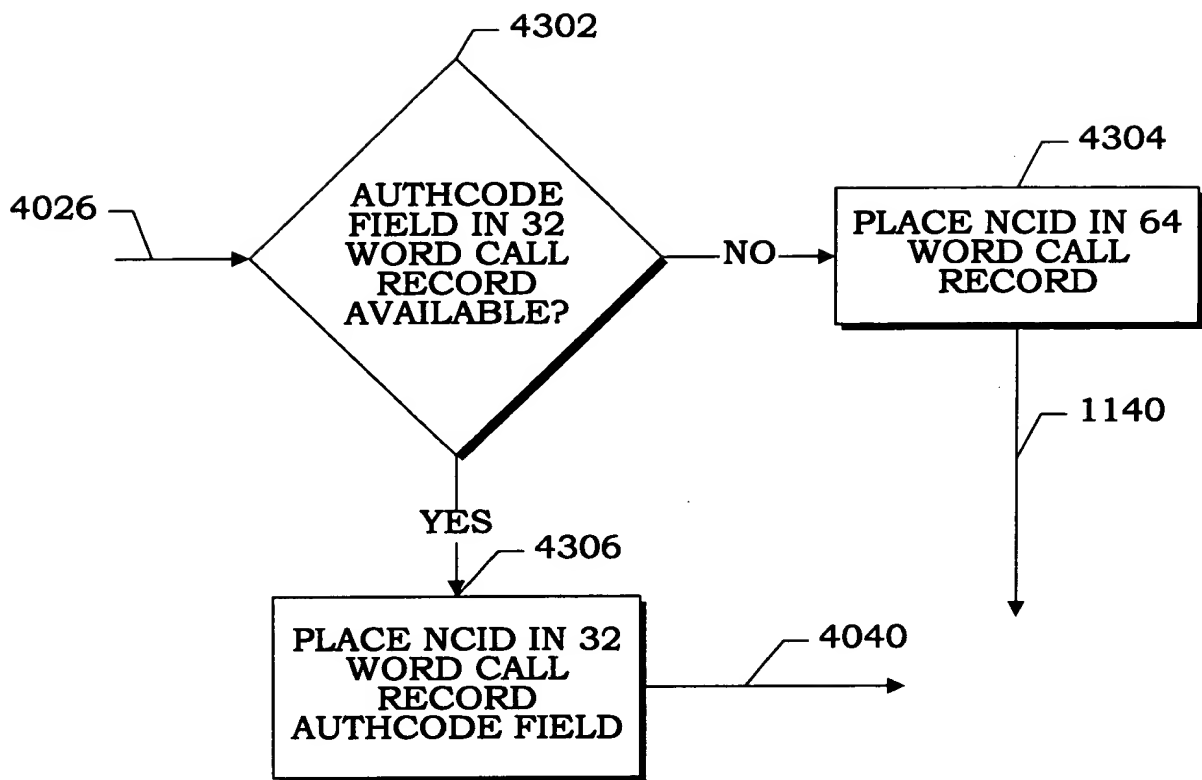


Figure 43

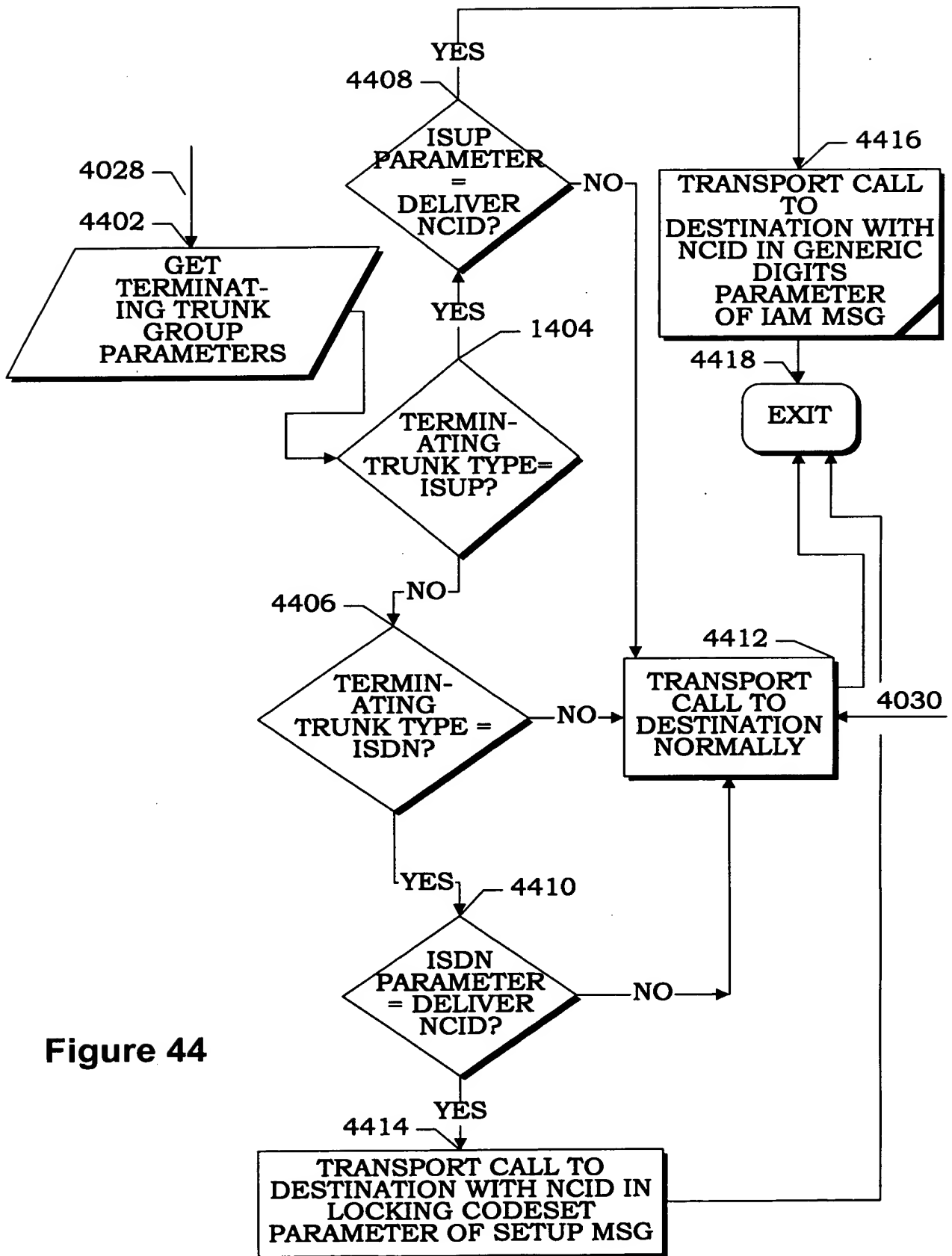


Figure 44

4500

**Transmit data over a hybrid
communication system**

4502

**Obtain a First Event From a CS-
Network Element**

4504

**Correlate the First Event With a
Second Event Obtained From a PS-
Network Element**

4506

**Create a Fault Message Based on
the Correlated First and Second
Events**

4508

Figure 45

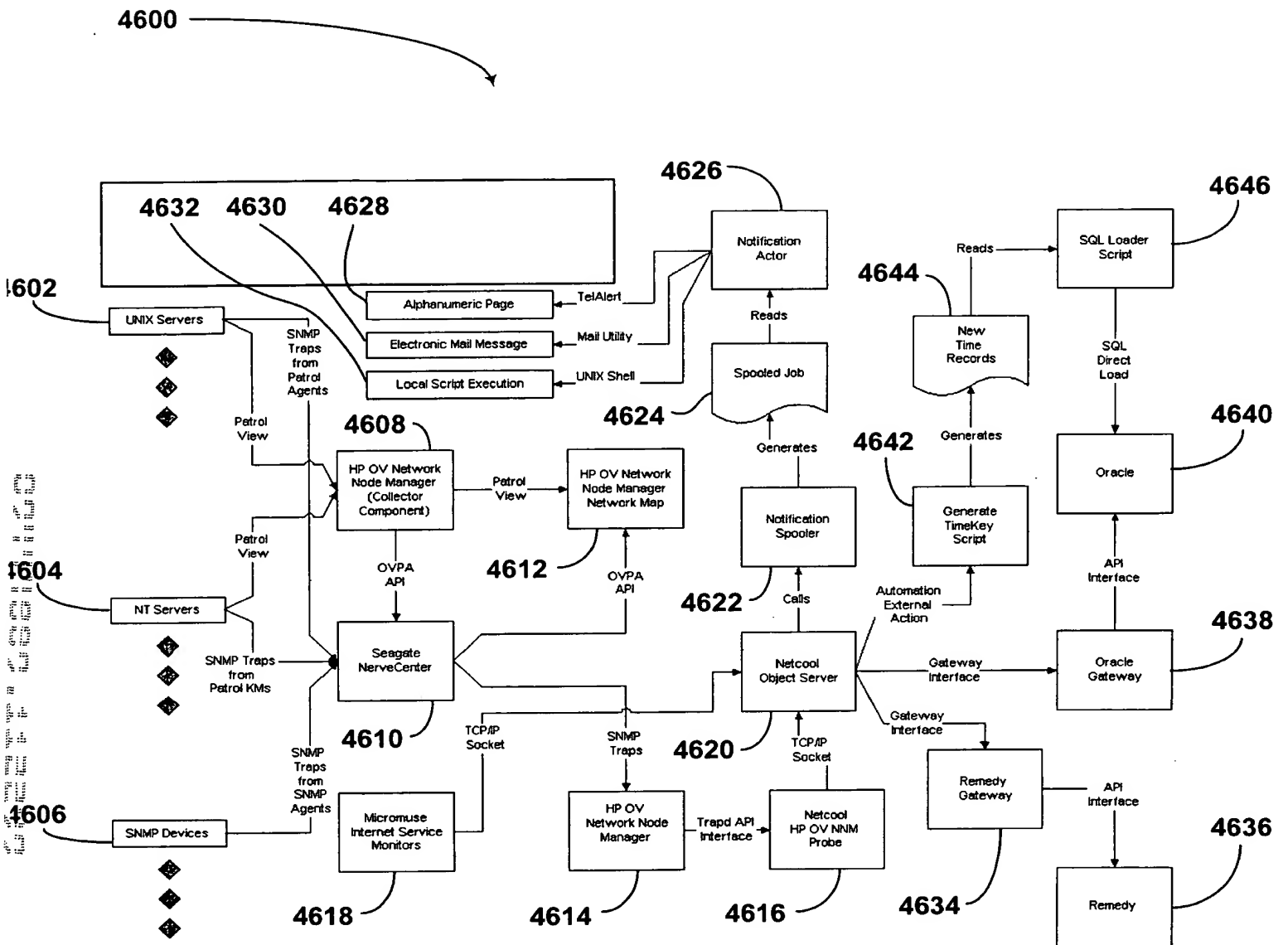


Figure 46

4700

**Monitor The Next Generation
Network**

4702

**Determine A Minimum Level of
Service**

4704

**Sense The Current Level Of
Service**

4706

**Compare the Current Level of
Service to the with the Minimum
Level of Service**

4708

**Provide An Indication if the
Current Level of Service is Within
A predetermined Range With
Respect to the Minimum Level of
Service**

4710

Figure 47

4800

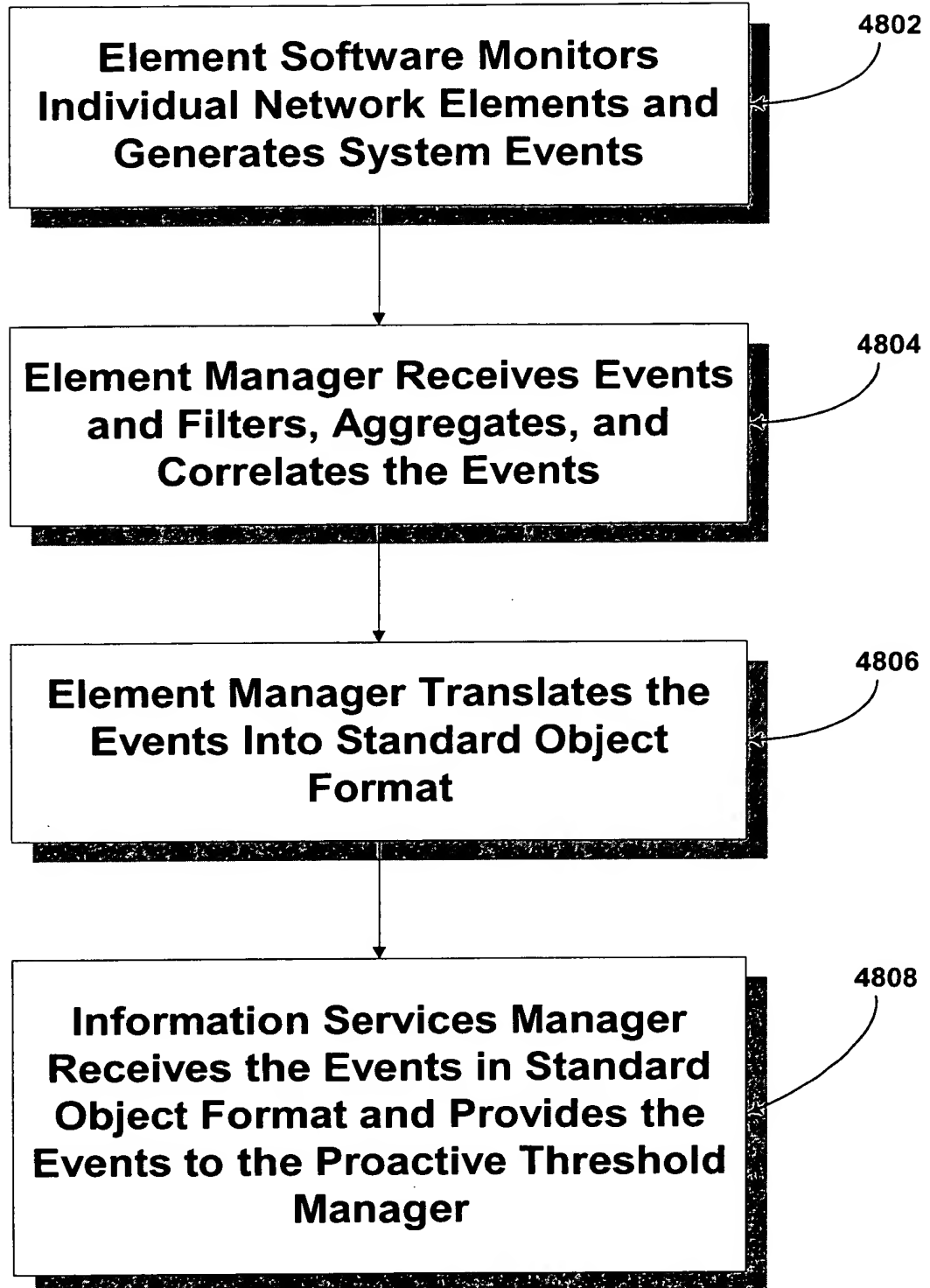


Figure 48

4900

**Monitor The Next Generation
Network**

4902

**Receive Events From Network
Elements**

4904

**Filter and Correlate the Received
Events**

4906

**Translate the Events Into Standard
Object Format**

4908

Figure 49

5000

**Provide Customer Access to
General Technicians**

5002

**Provide Customer Access to
Expert Technicians**

5004

**Provide Customer Access to
Solution Experts**

5006

Figure 50

5100

**Transmit data over a hybrid
communication system during a
data session**

5102

**Allow telephonic communication
over the hybrid communication
system during the data session**

5104

**Route the telephonic
communication over the hybrid
communication system via a user
action**

5106

**Limit the telephonic
communication over the hybrid
communication system based on a
user profile**

5108

Figure 51

5200

**Identify Patterns and Correlations
in System Data**

5202

**Build a Model of a Behavior of the
Network Based on the Patterns
and Correlations**

5204

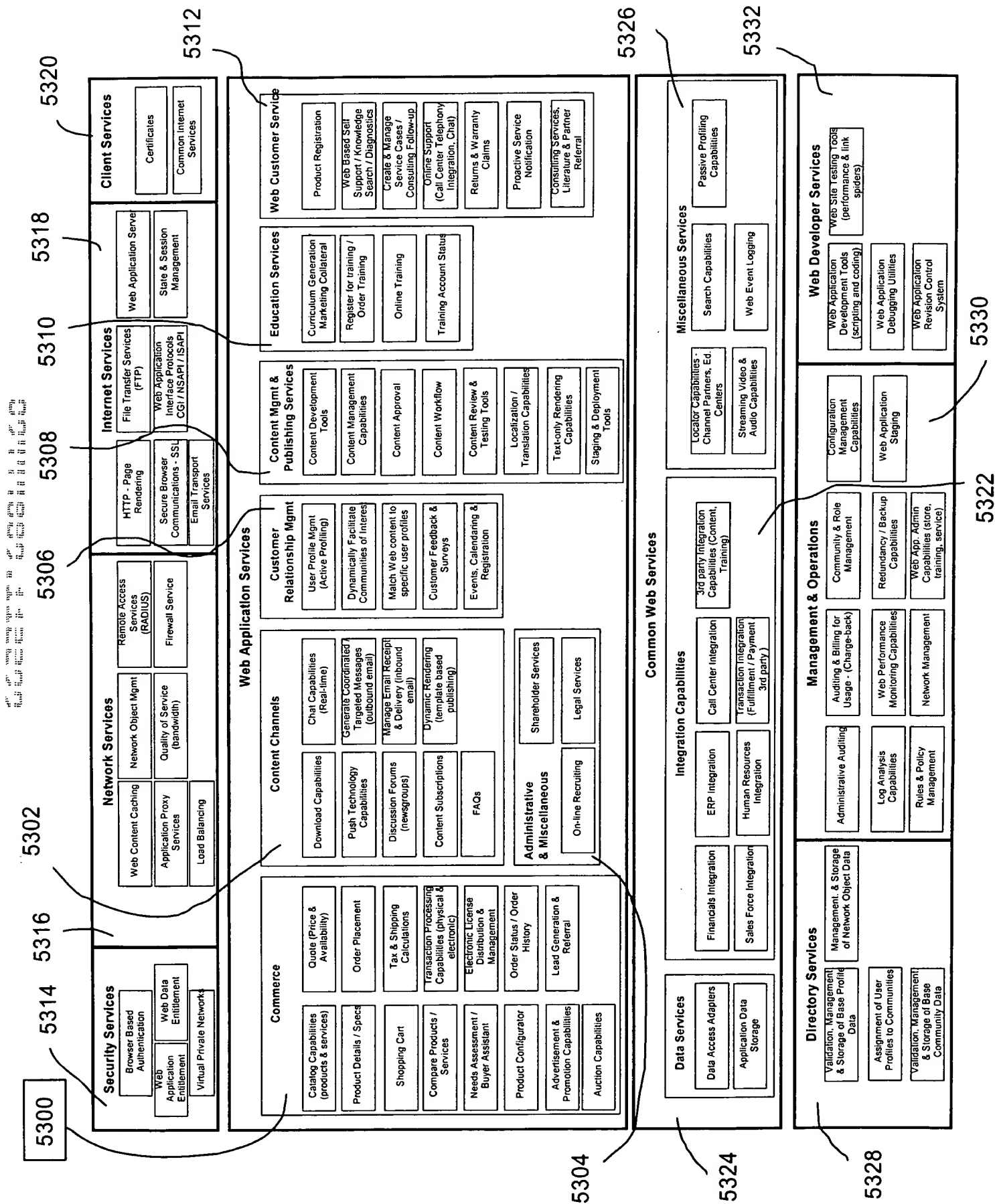
**Predict Future Behavior of the
of the Network Based on the Model**

5206

**Manage the Network Based on the
Predicted Future Behavior of the
Network**

5208

Figure 52



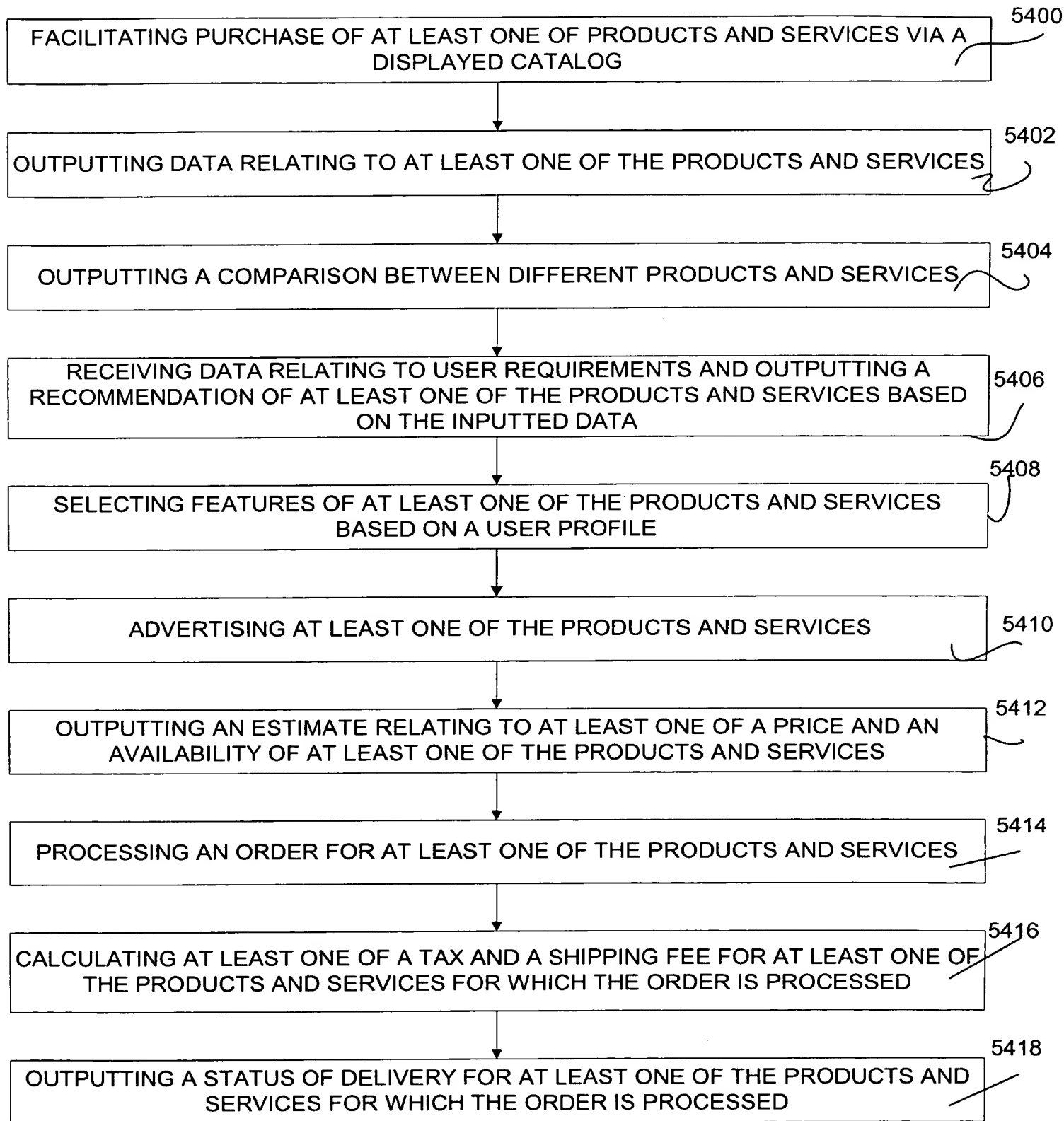


Figure 54

500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600

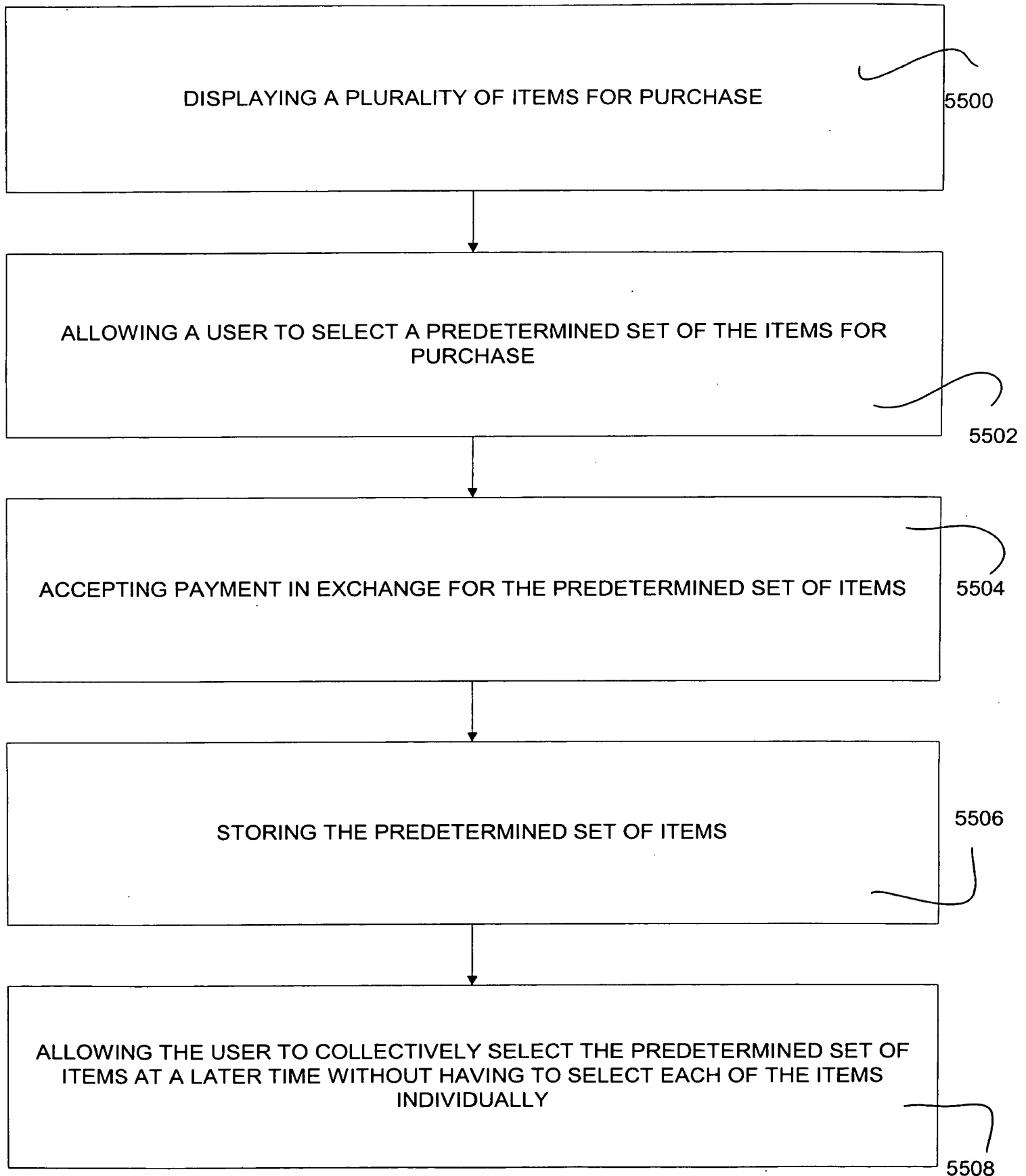
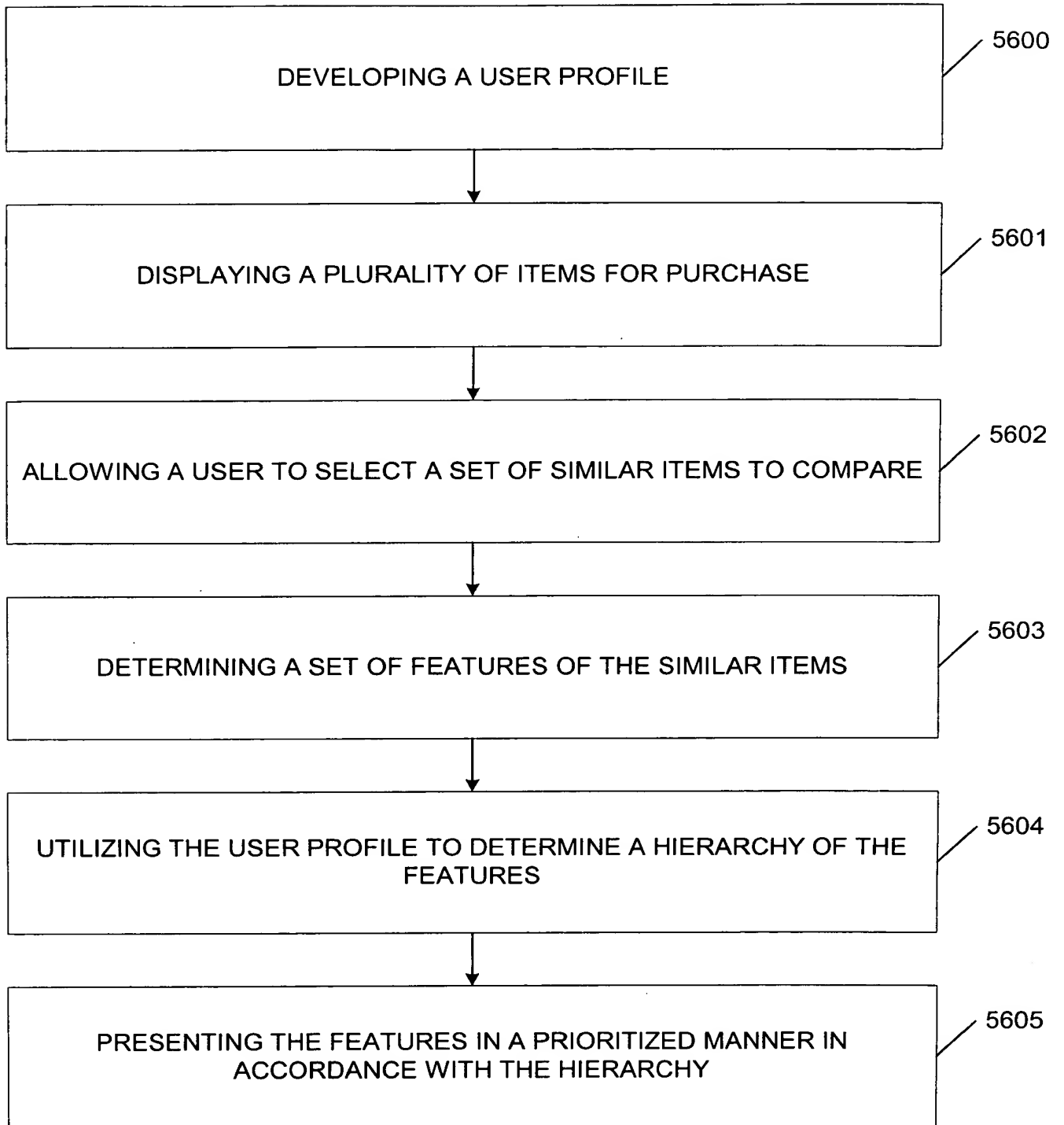


Figure 55



5404

Figure 56

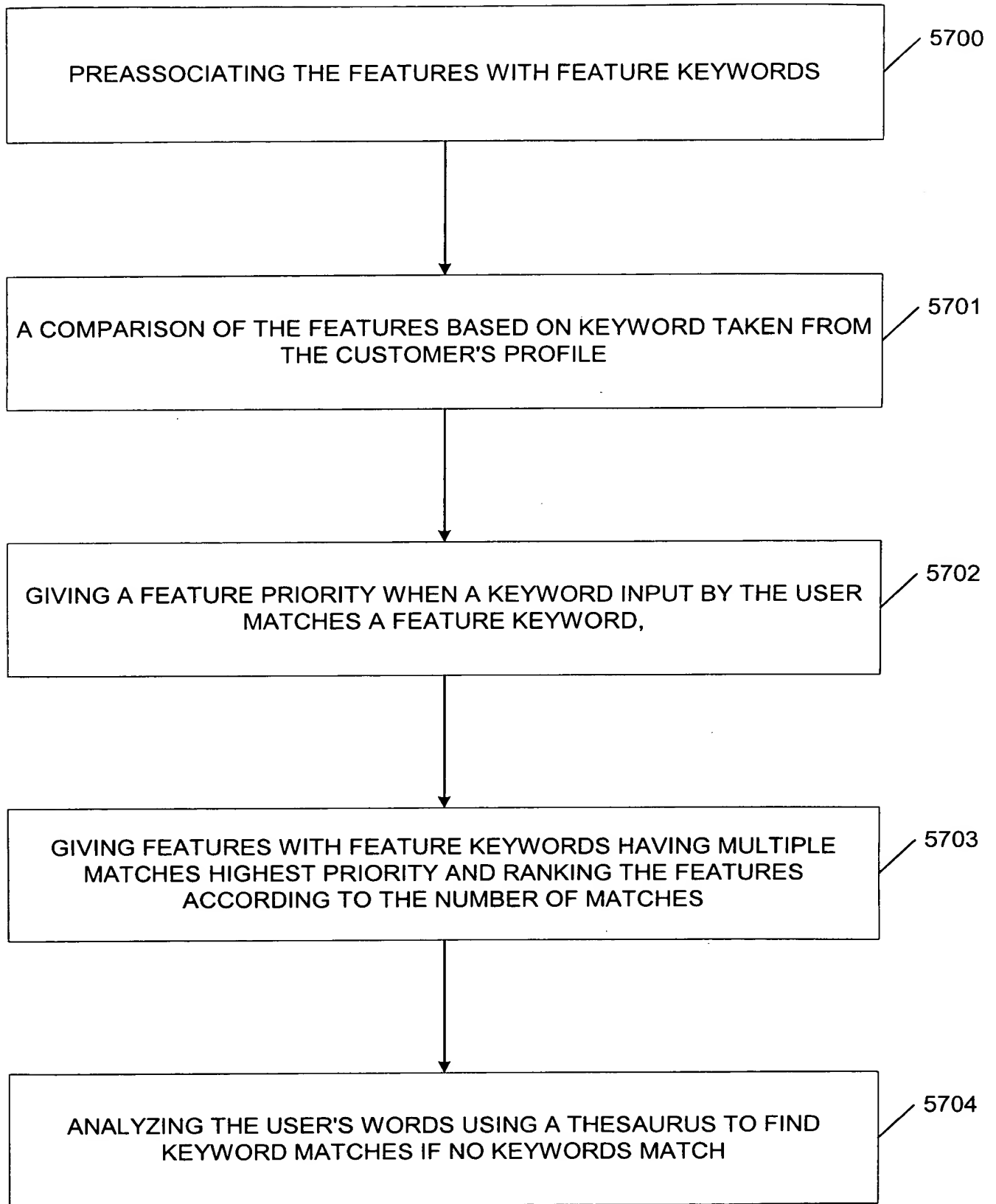


Figure 57

ANALYZING USER REQUIREMENTS

5802

REVIEWING AVAILABLE PRODUCTS

5804

GENERATING AT LEAST ONE RECOMMENDED SOLUTION BASED ON THE USER
REQUIREMENTS

5806

DISPLAYING THE AT LEAST ONE RECOMMENDED SOLUTION

5808

ACCEPTING PAYMENT IN EXCHANGE FOR THE AT LEAST ONE SOLUTION

Figure 58

5810

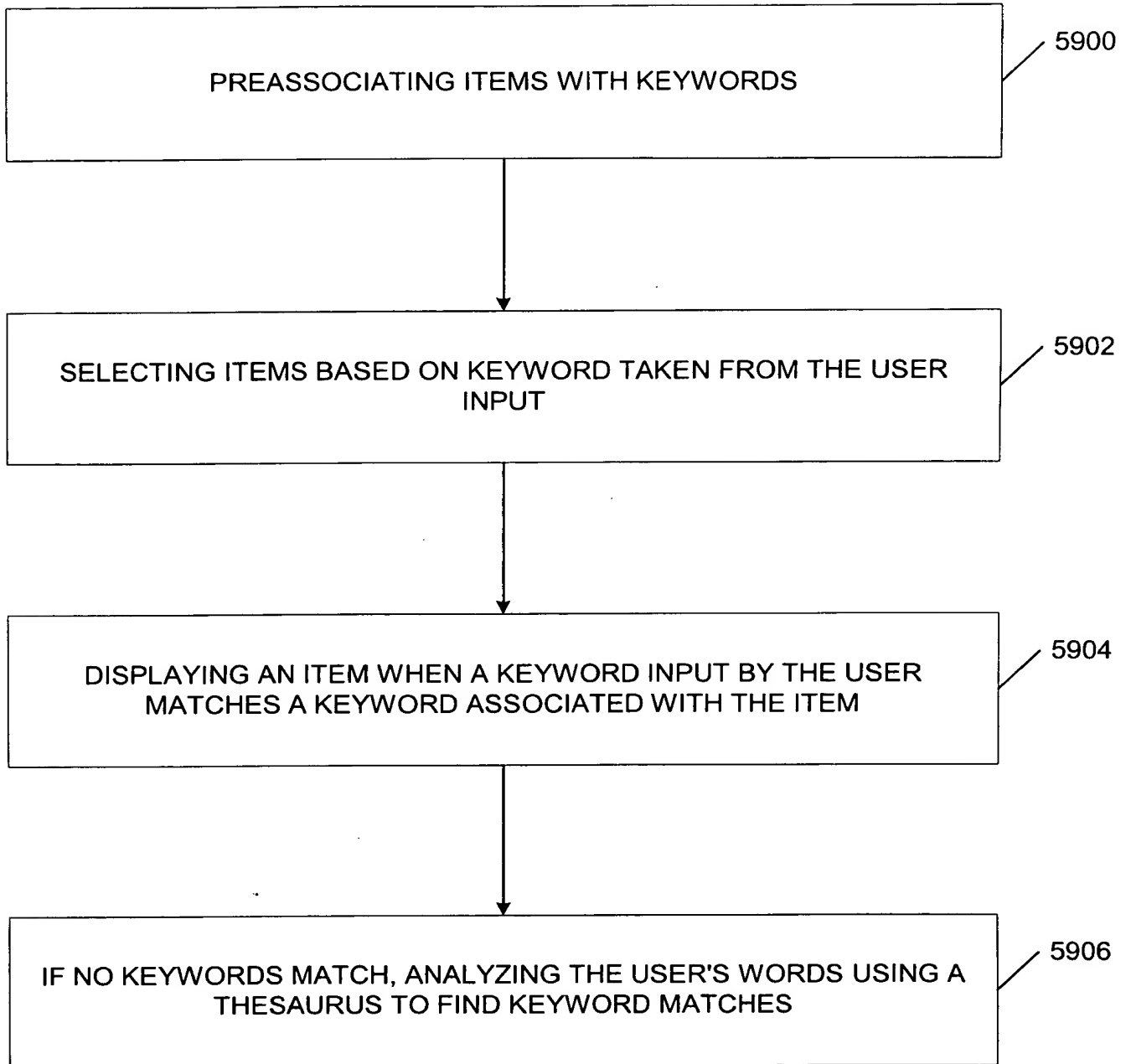


Figure 59

5806

DISPLAYING A PLURALITY OF ITEMS FOR PURCHASE, WHEREIN EACH OF THE ITEMS
INCLUDES A PLURALITY OF AVAILABLE FEATURES

6002

DISPLAYING THE AVAILABLE FEATURES OF THE ITEMS

6003

ALLOWING A USER TO SELECT THE AVAILABLE FEATURES OF EACH OF THE ITEMS
TO BE PURCHASED

6004

DETERMINING A PRICE AND AVAILABILITY OF THE SELECTED ITEMS AND THE
SELECTED FEATURES THEREOF AND DISPLAYING THE SAME

6006

ACCEPTING PAYMENT IN EXCHANGE FOR THE SELECTED ITEMS AND THE
SELECTED FEATURES THEREOF

6008

Figure 60

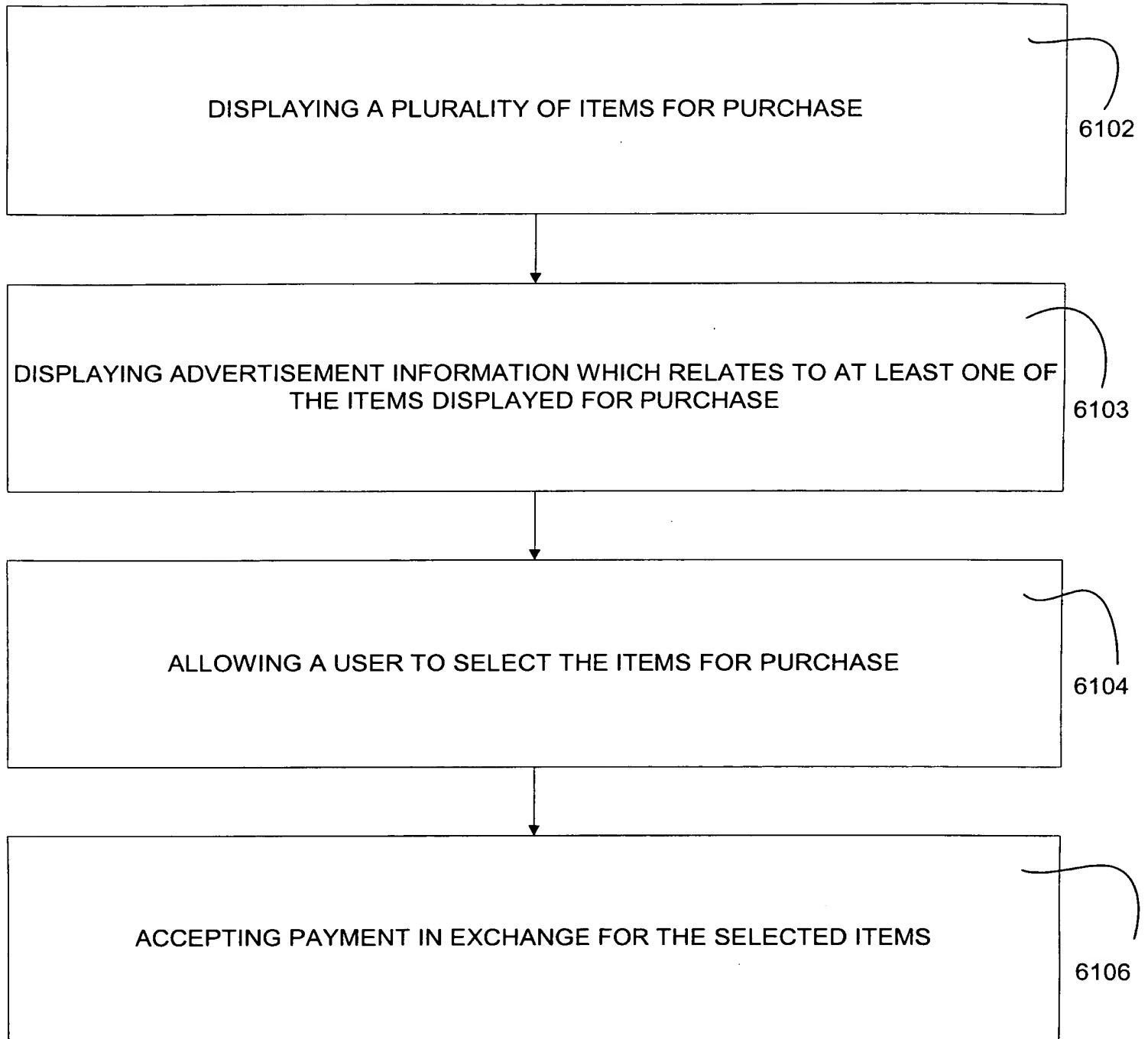


Figure 61

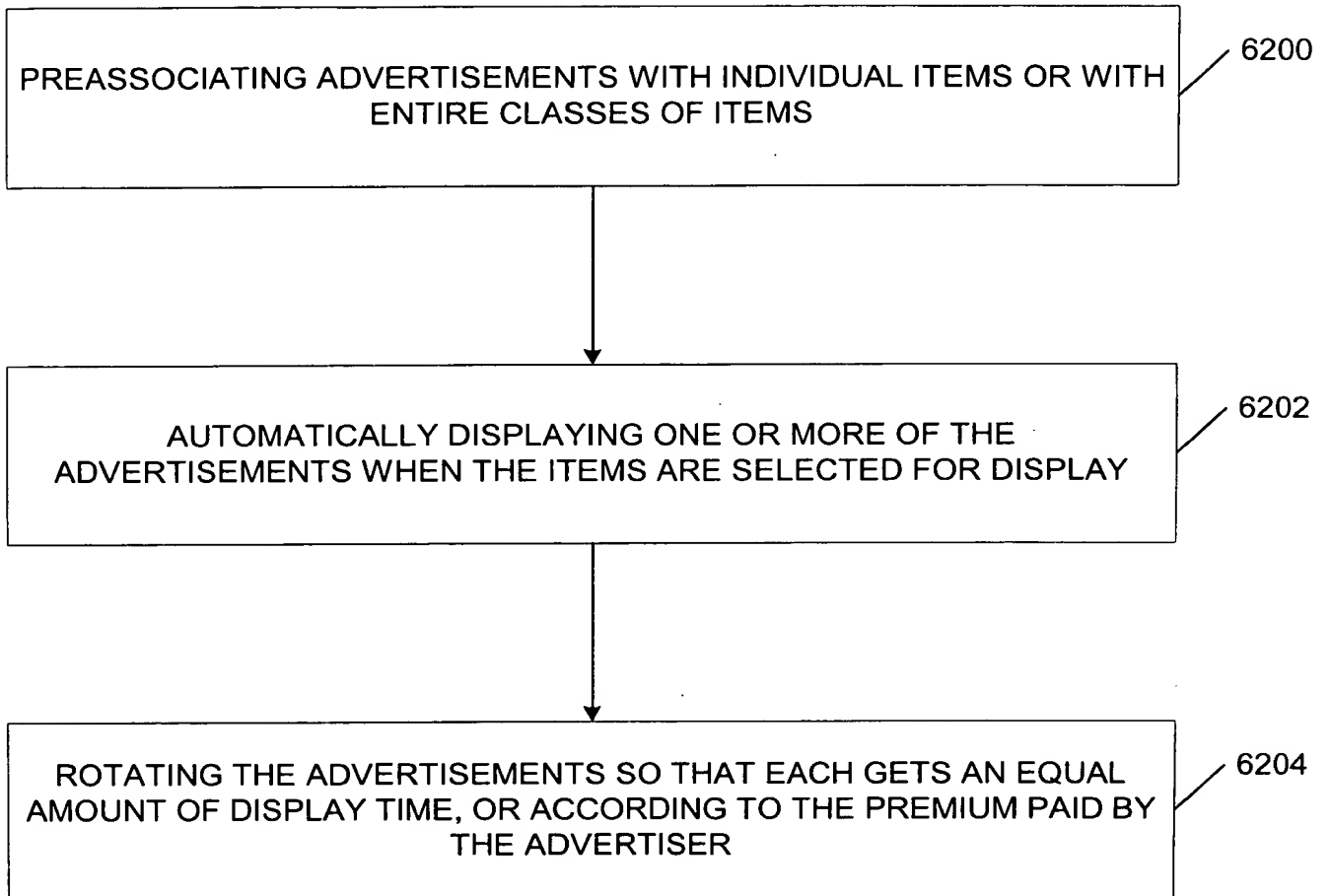


Figure 62

6103

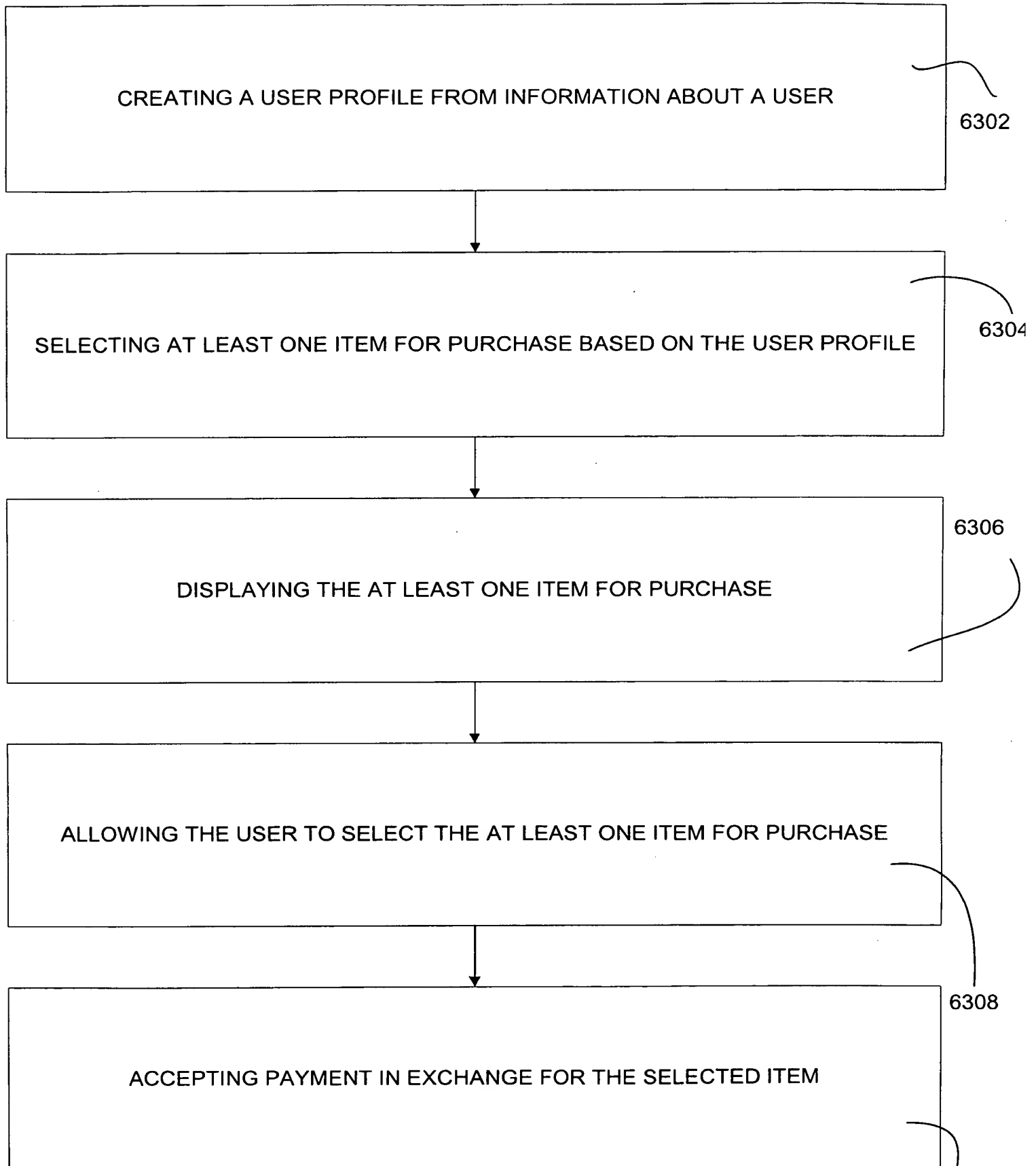
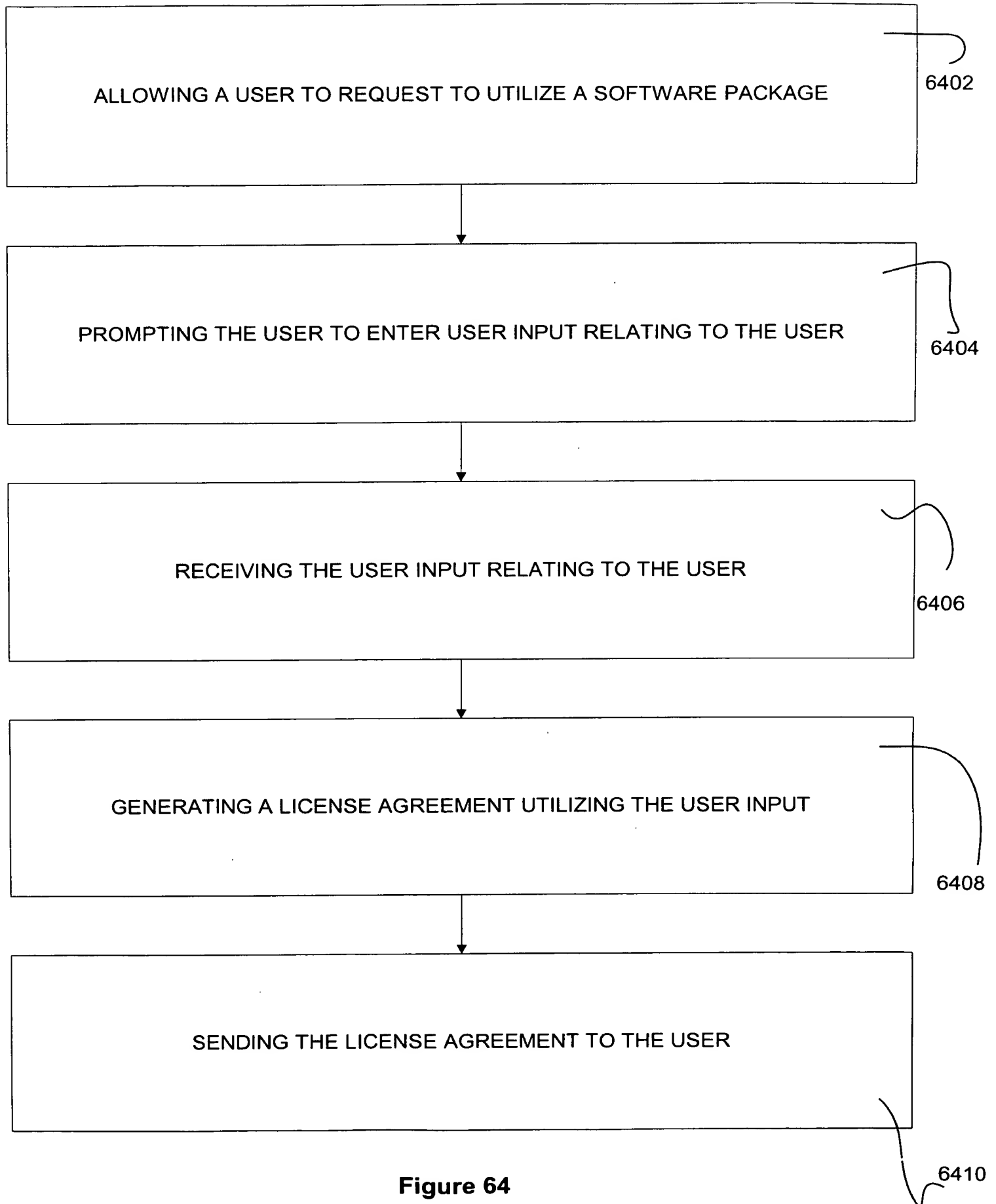


Figure 63



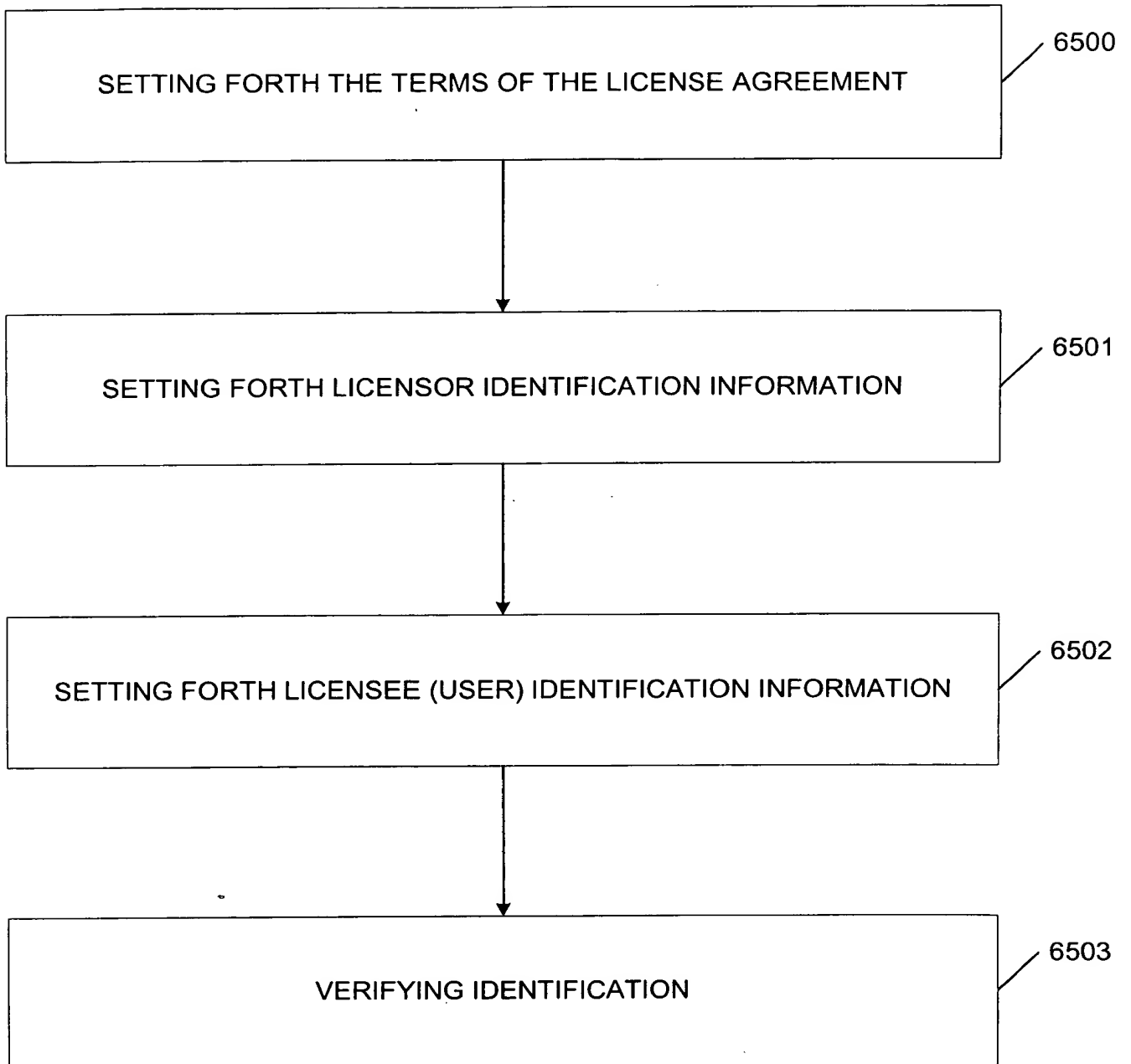
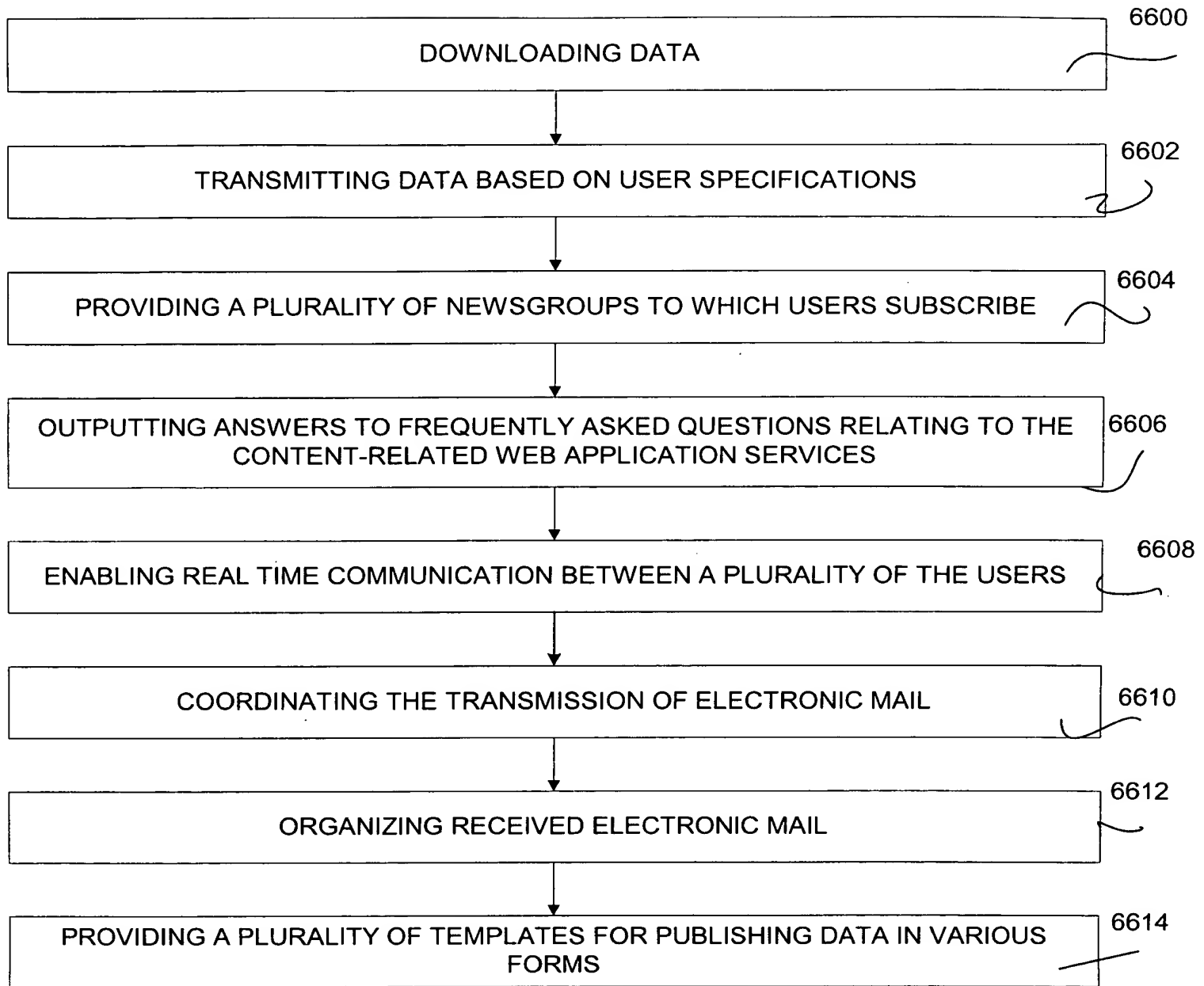


Figure 65

6408

5302



5302

Figure 66

5306 6700 6702 6704 6706 6708

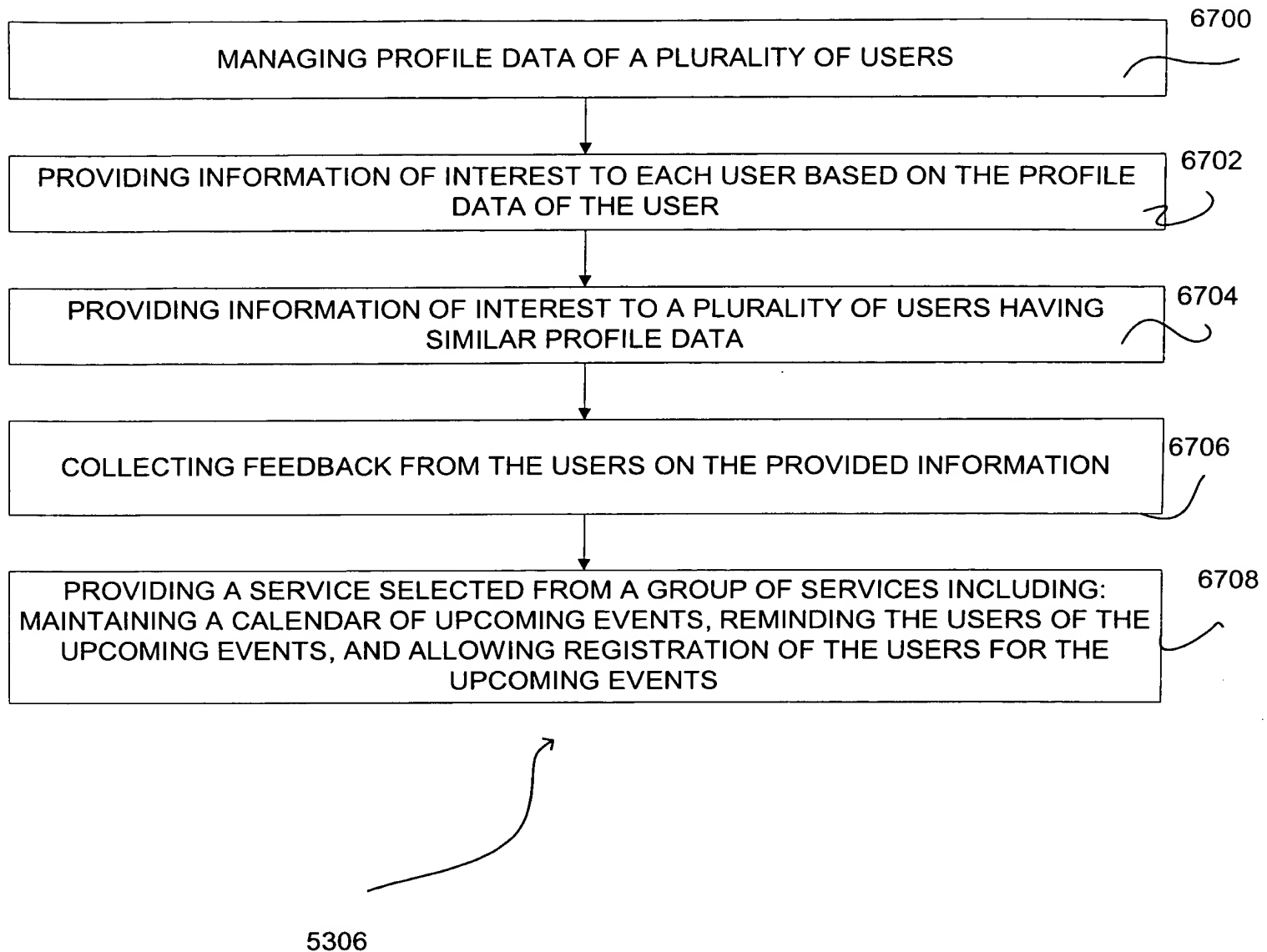
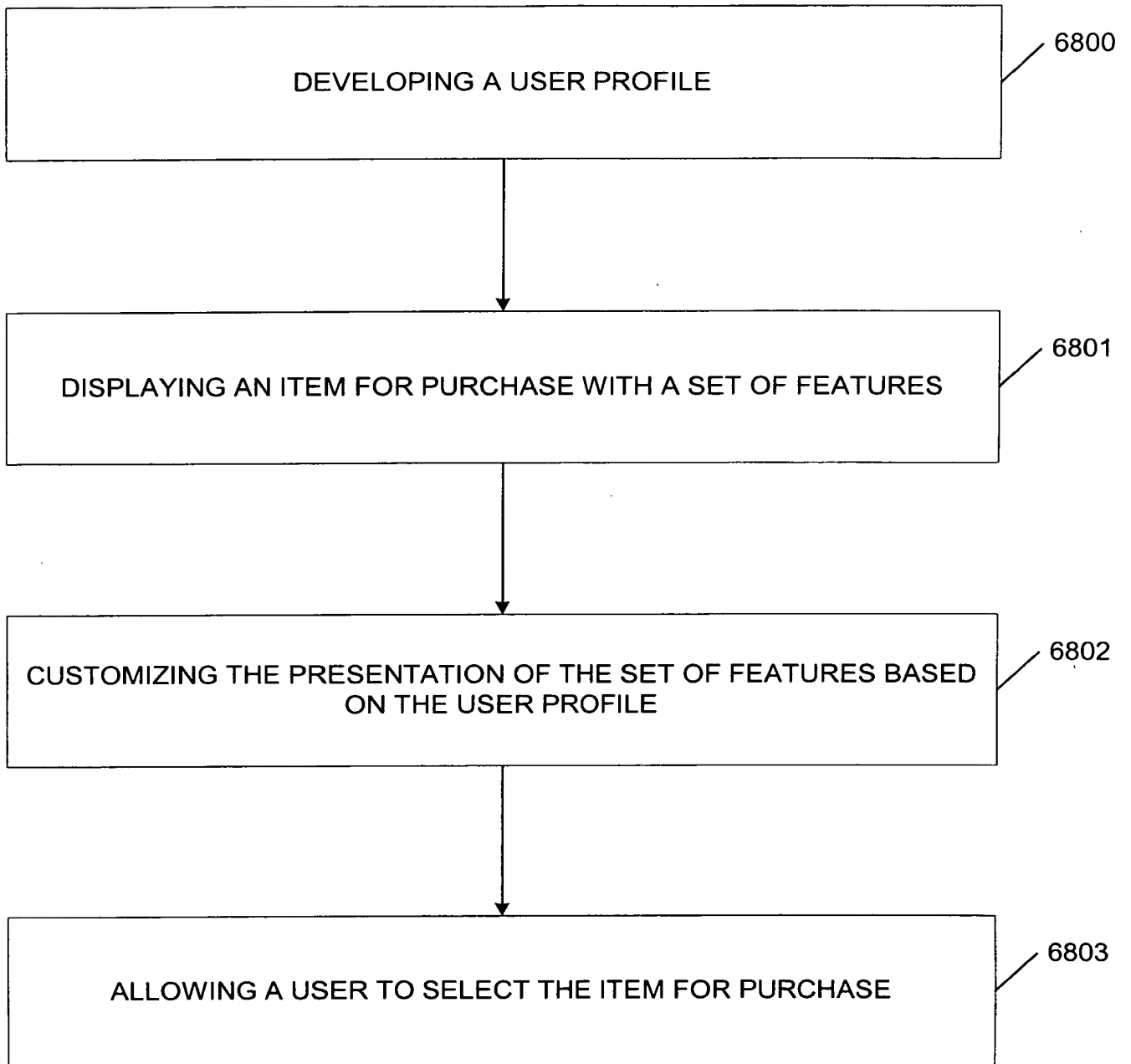


Figure 67



6700

Figure 68

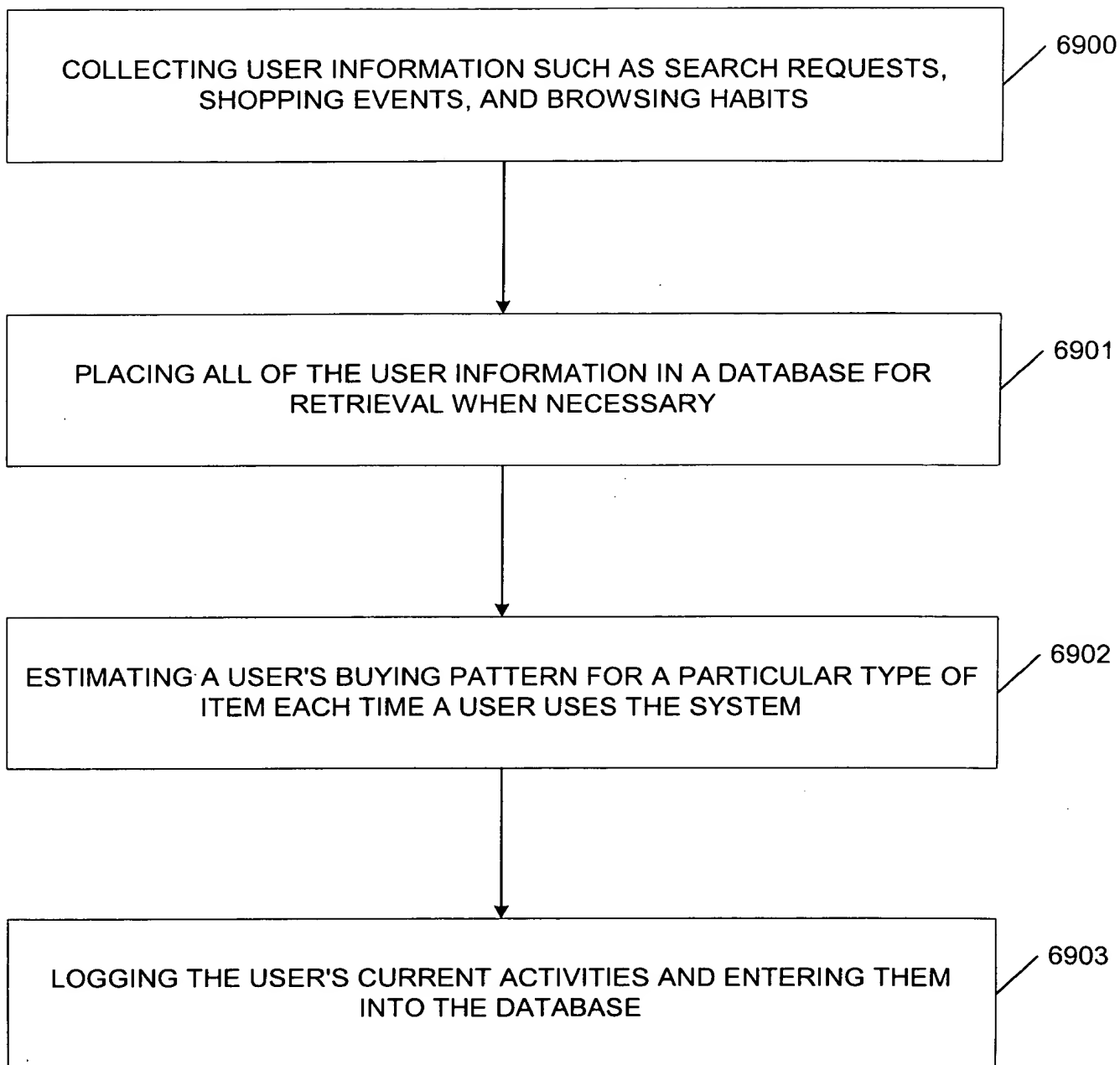


Figure 69

6810

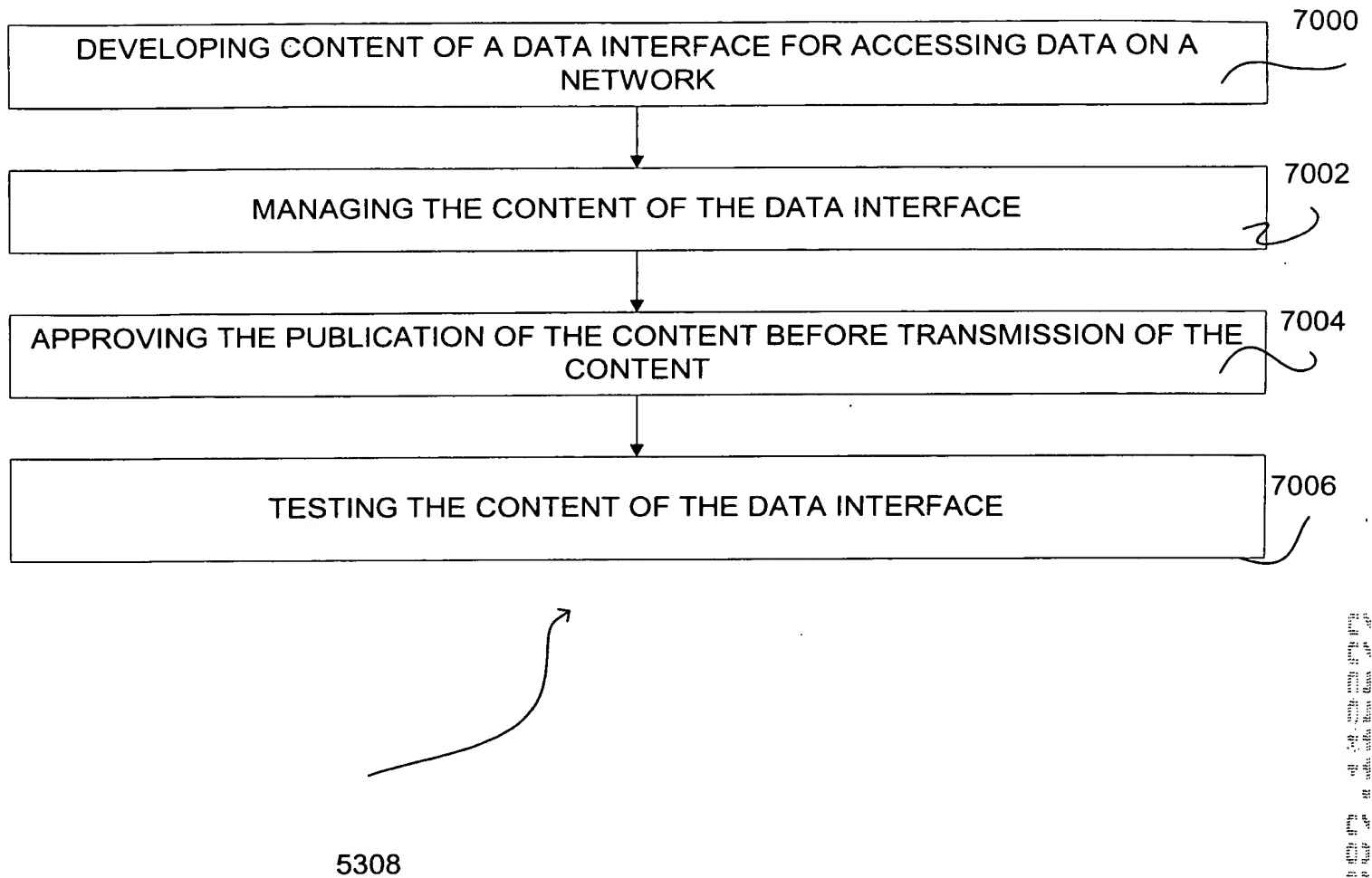
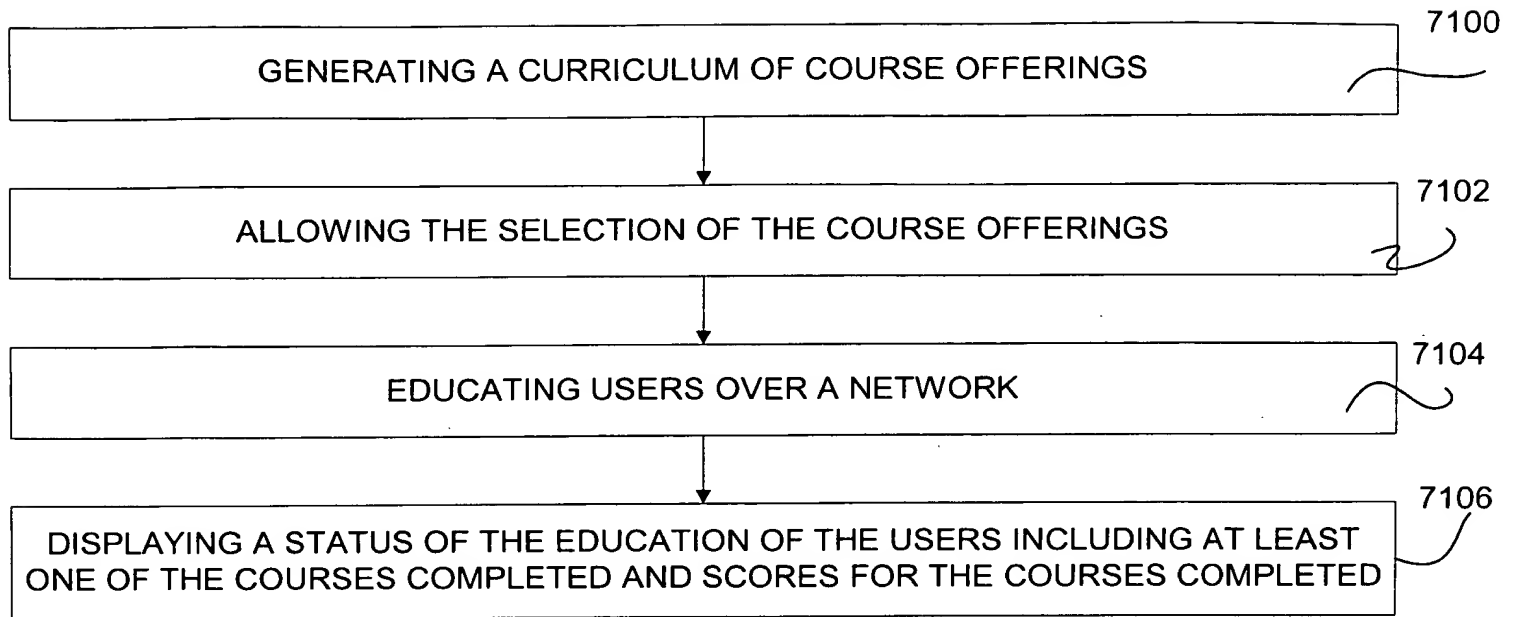


Figure 70



5310

Figure 71

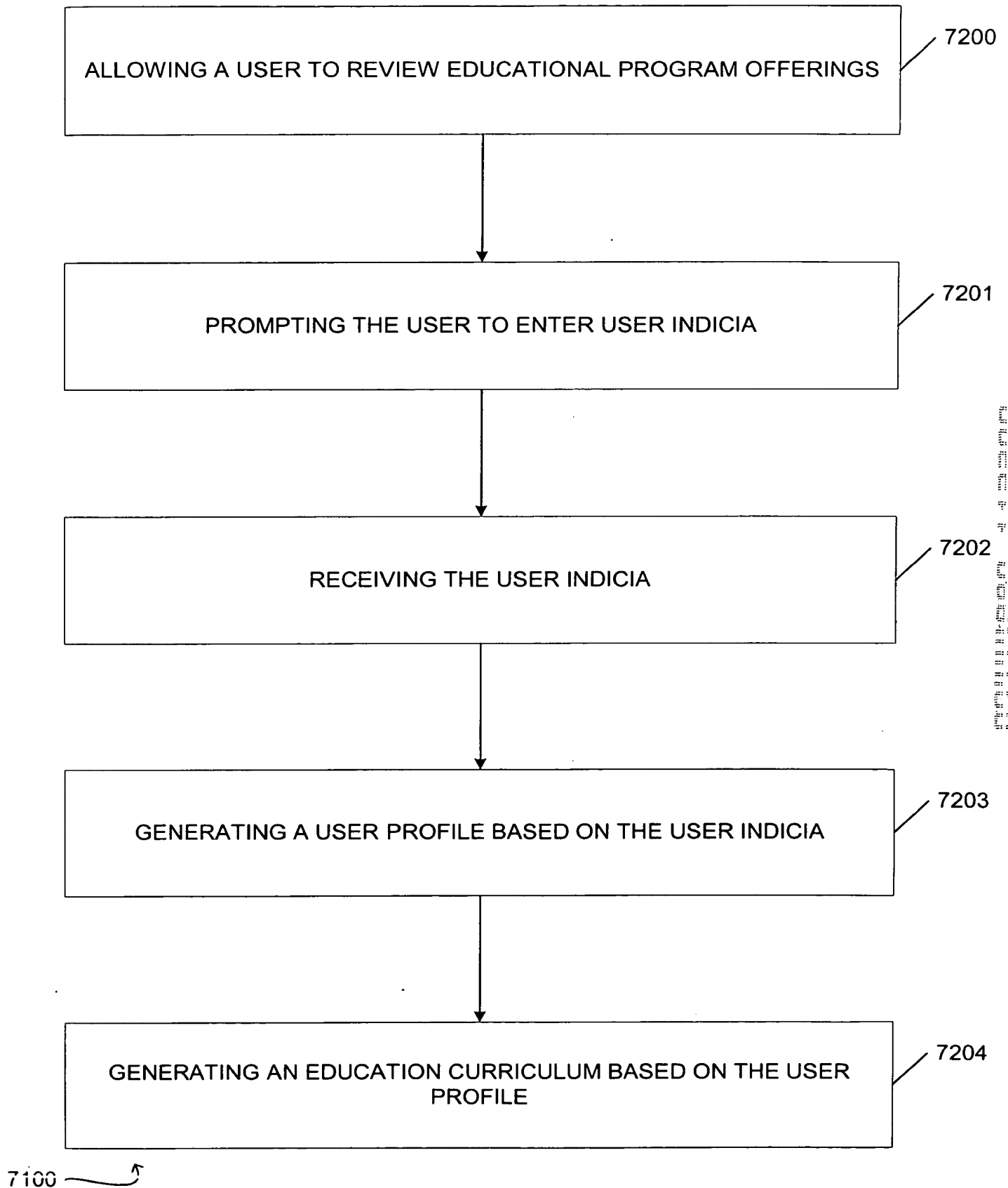


Figure 72

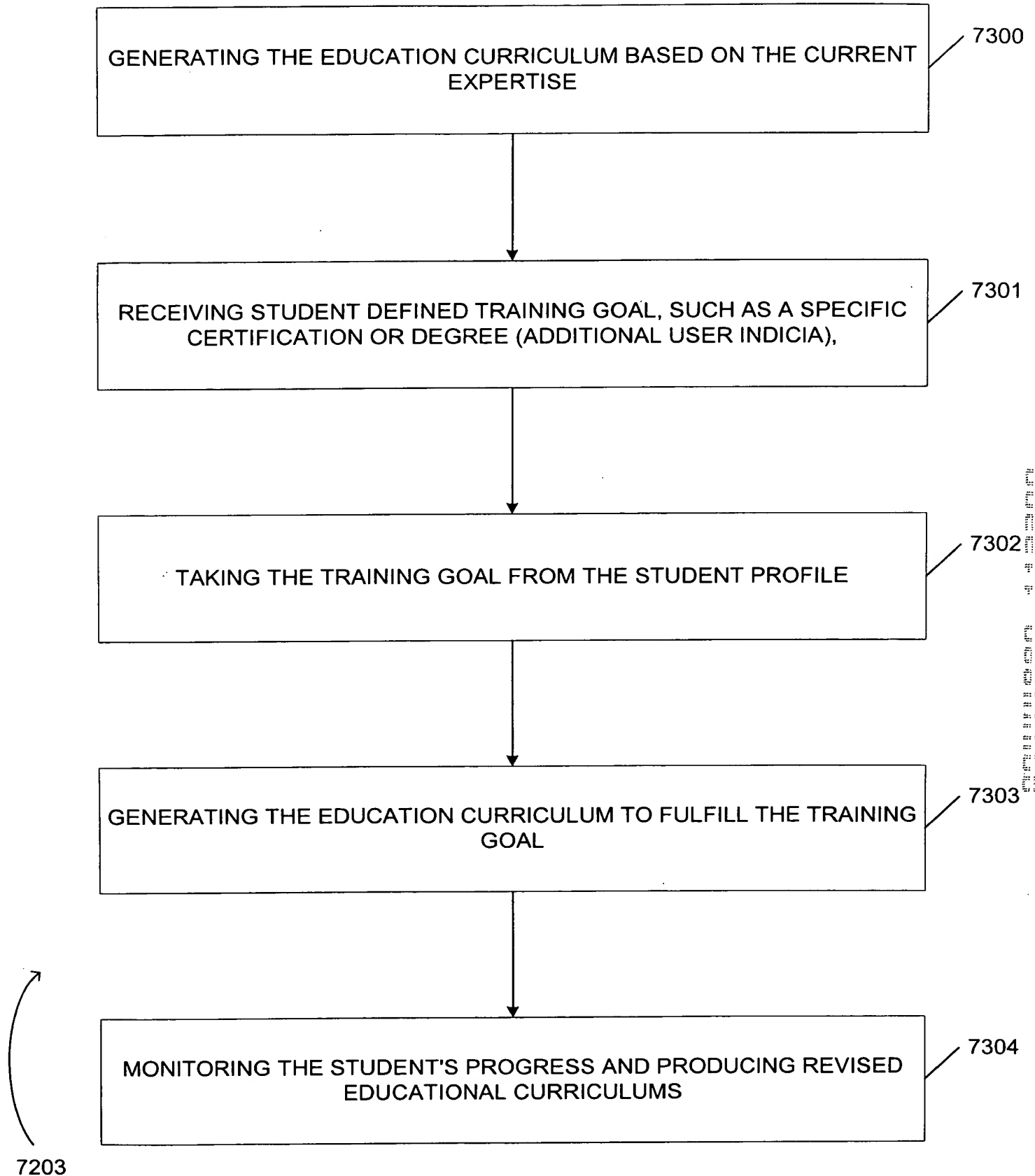


Figure 73

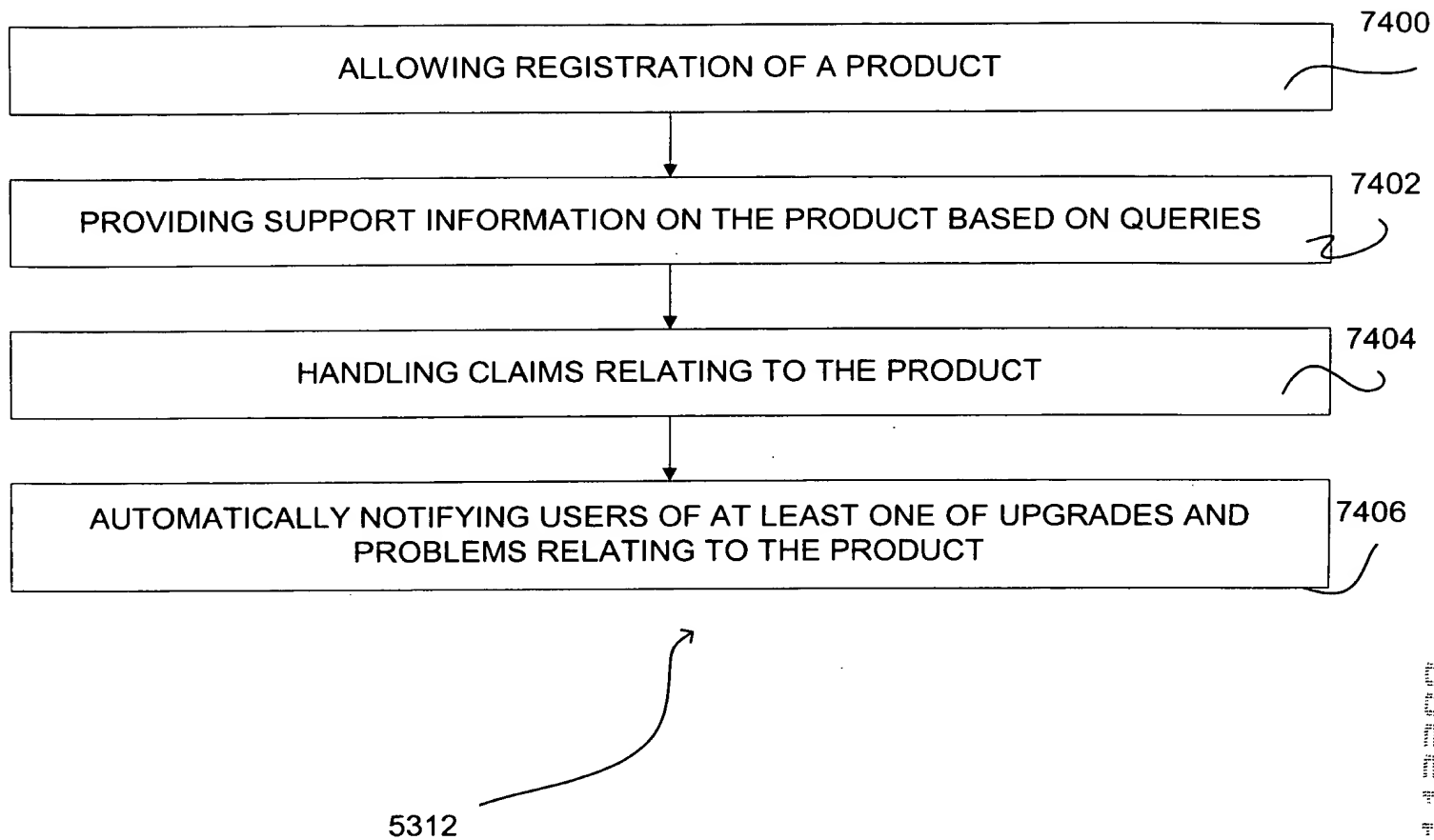
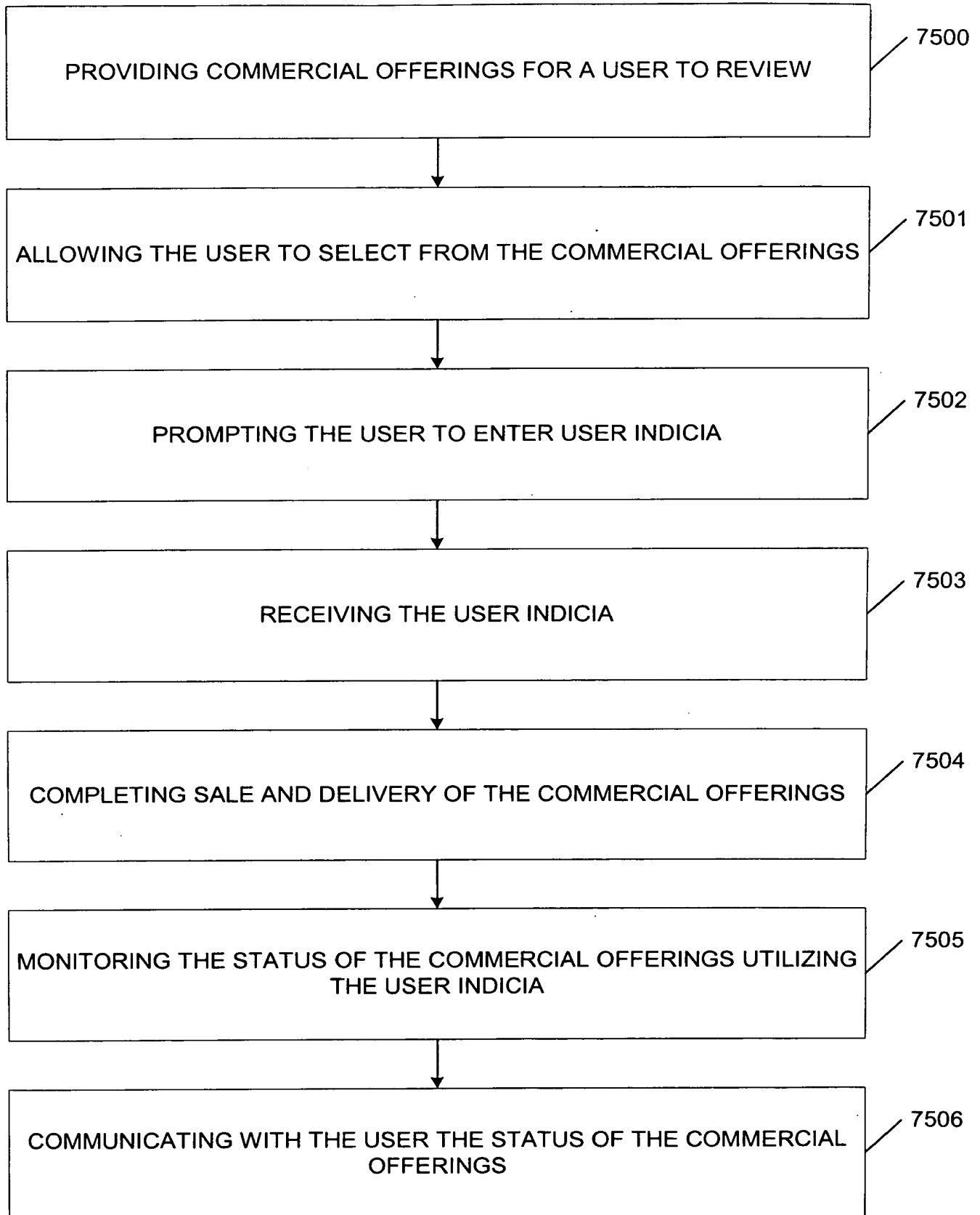


Figure 74



7406 ↗

Figure 75

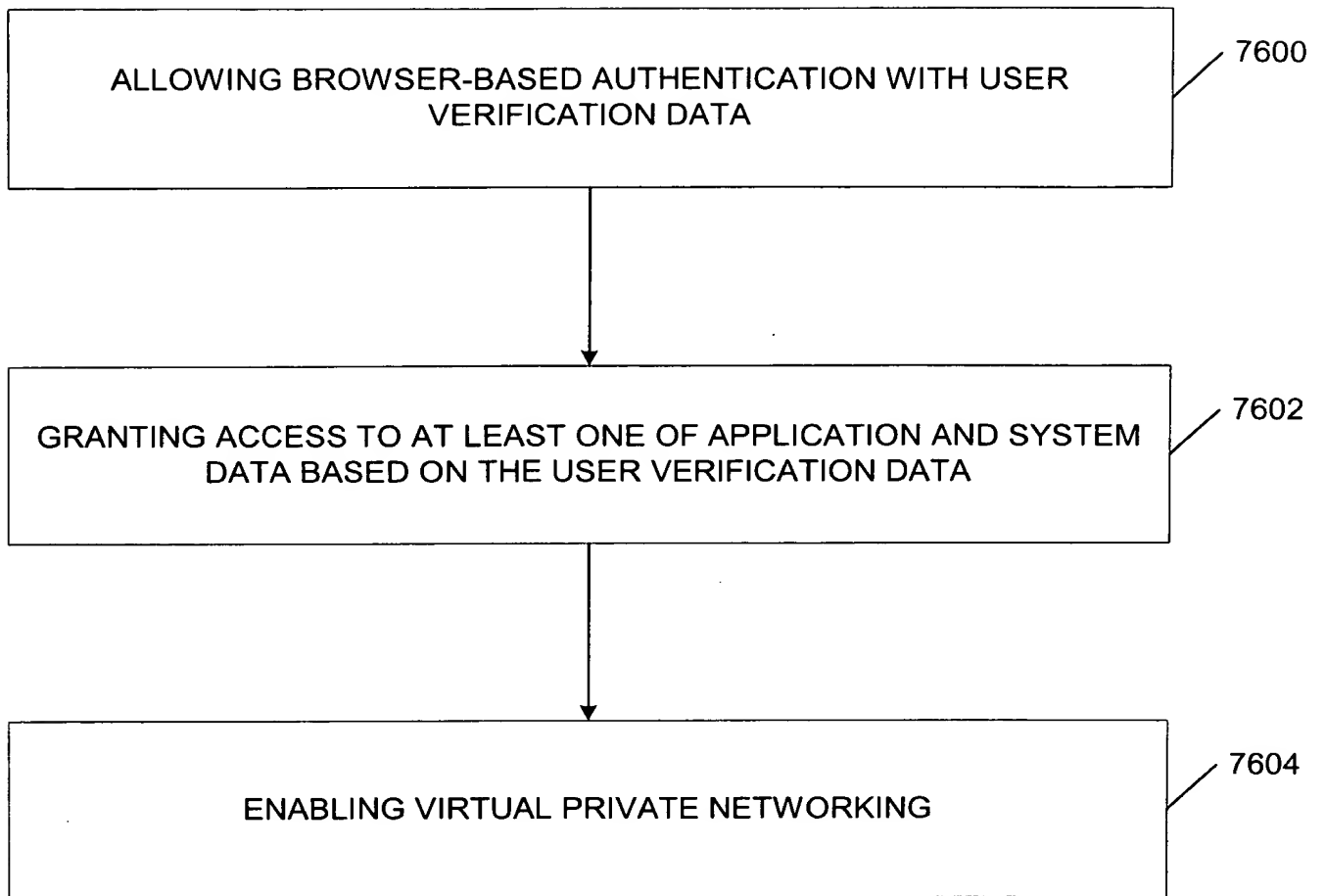


Figure 76

5314

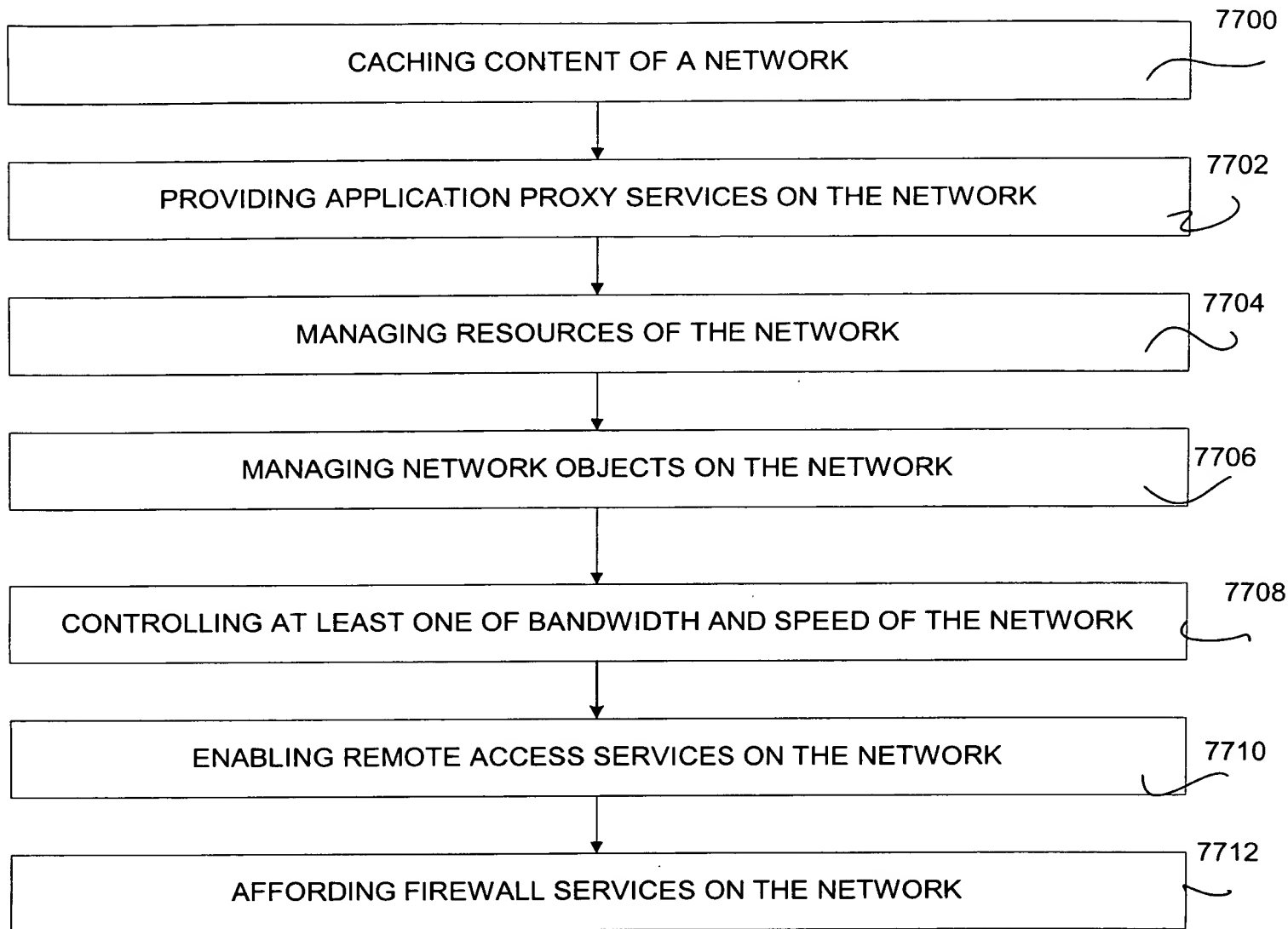


Figure 77

5316

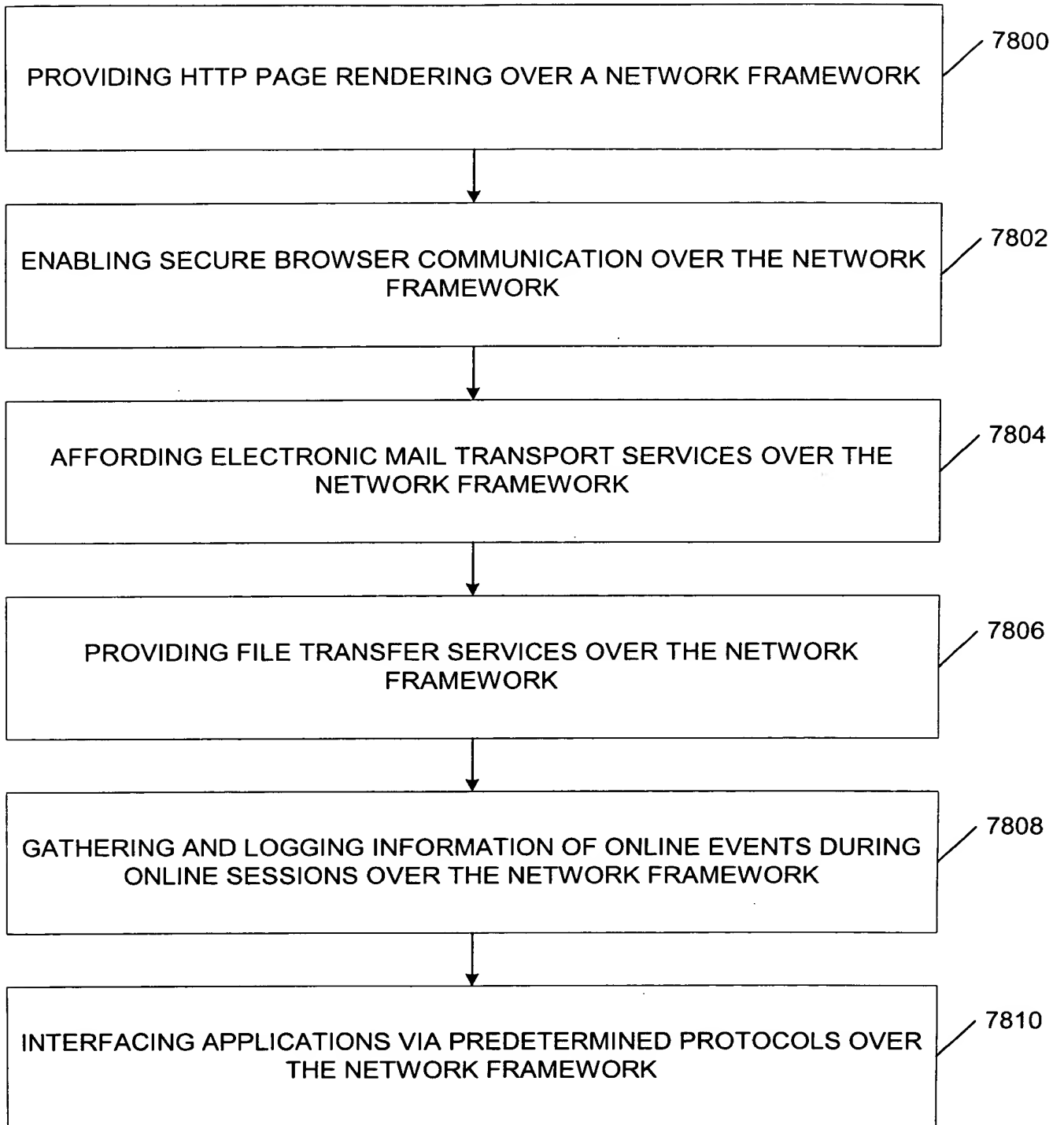


Figure 78

5318

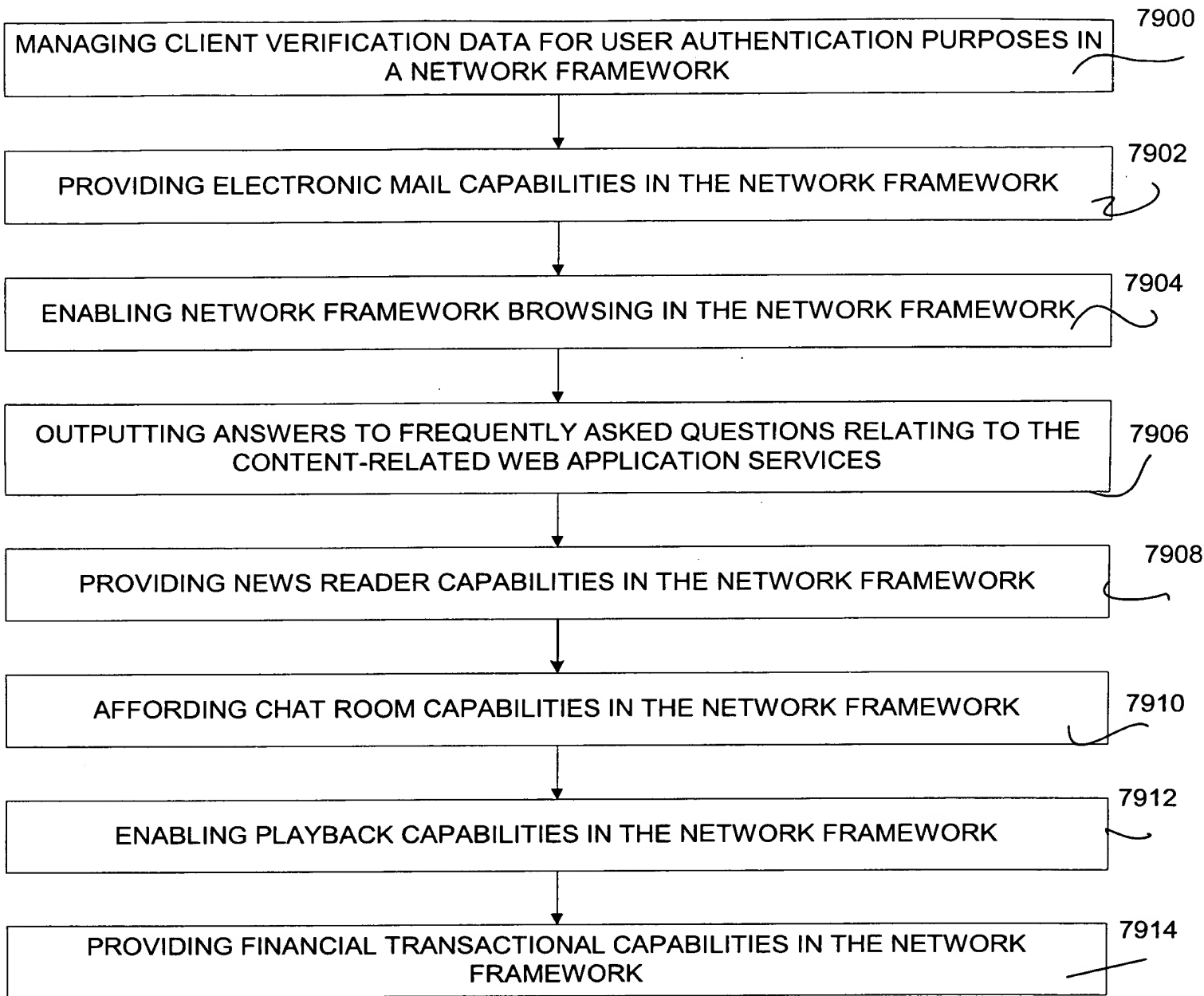


Figure 79

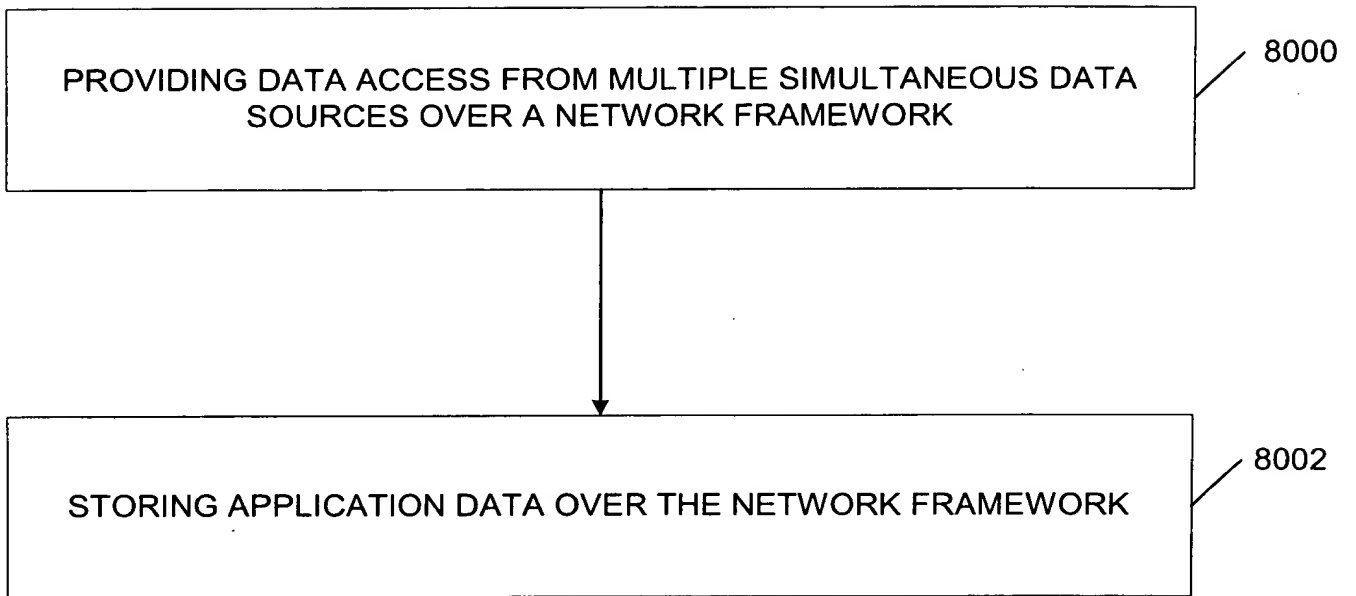
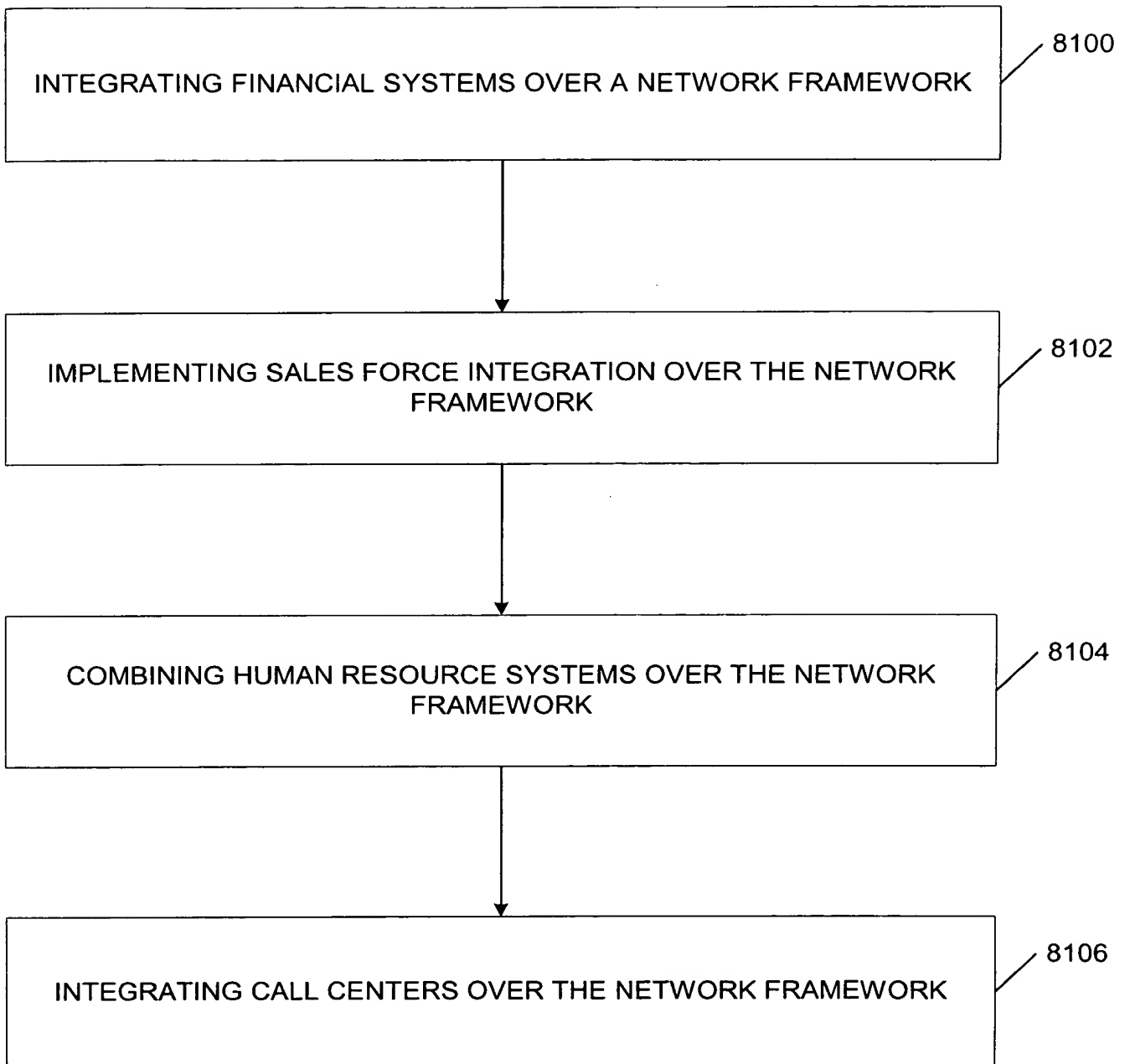


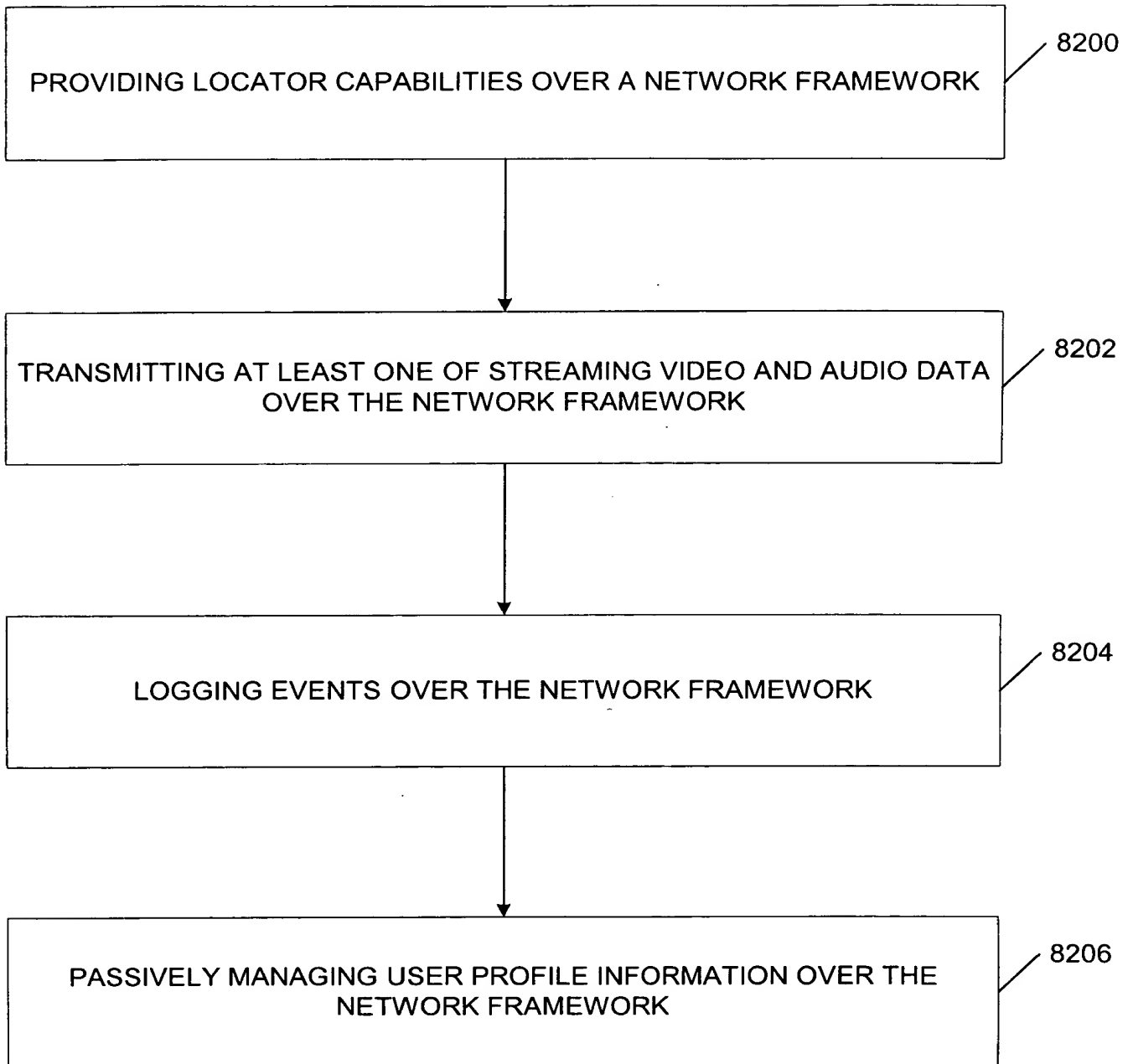
Figure 80

5324



5812

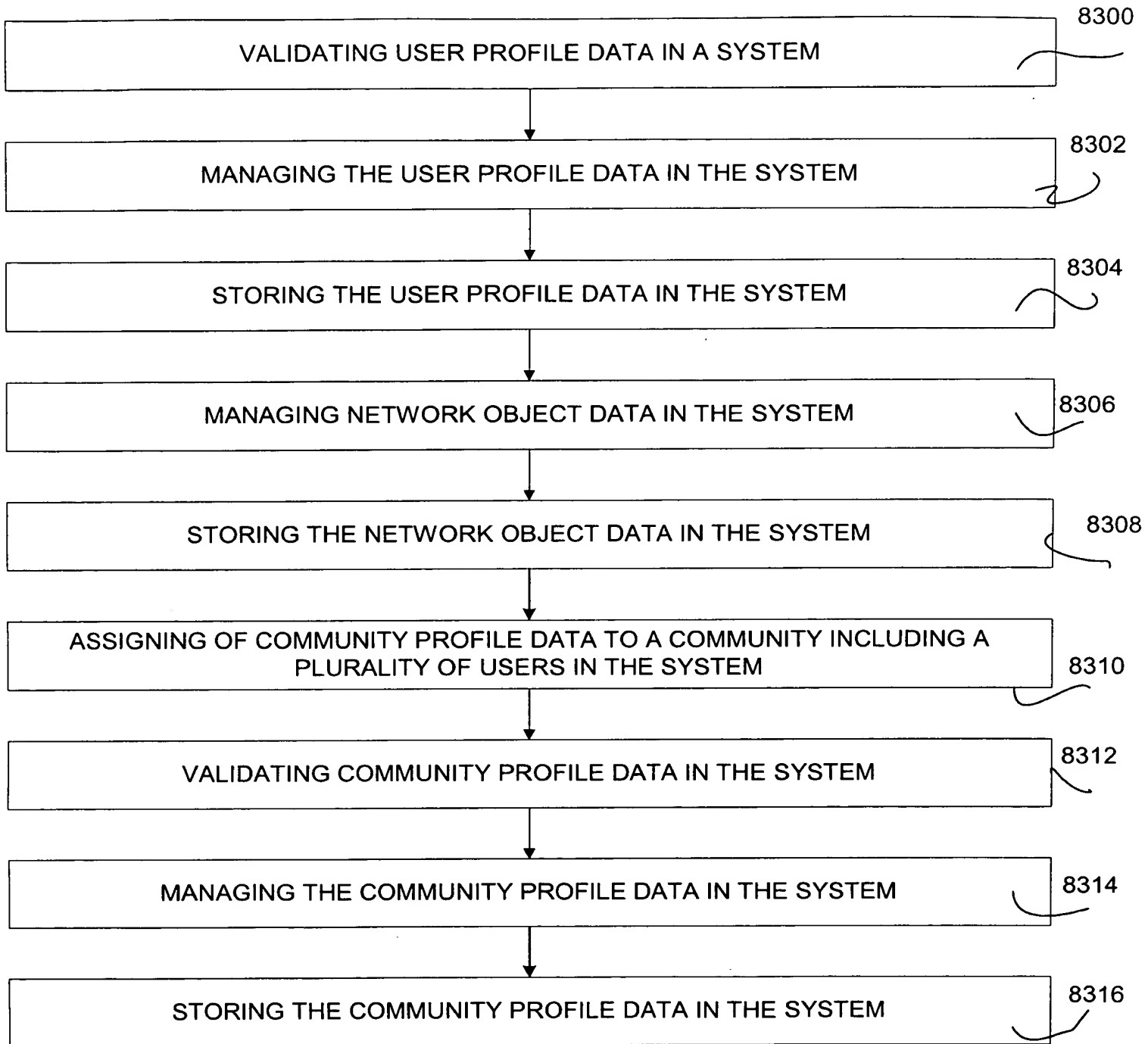
Figure 81



5326

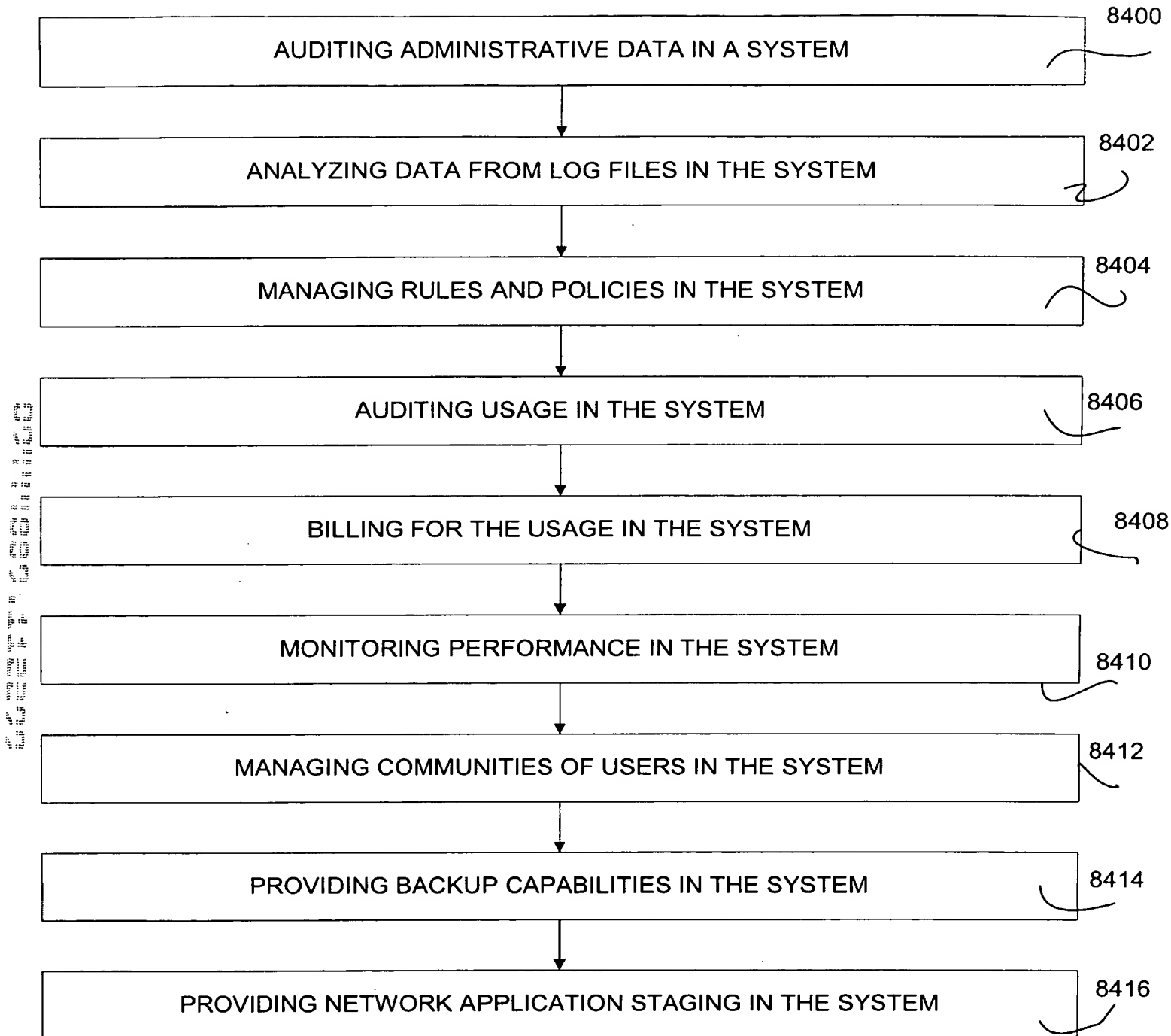
Figure 82

5328



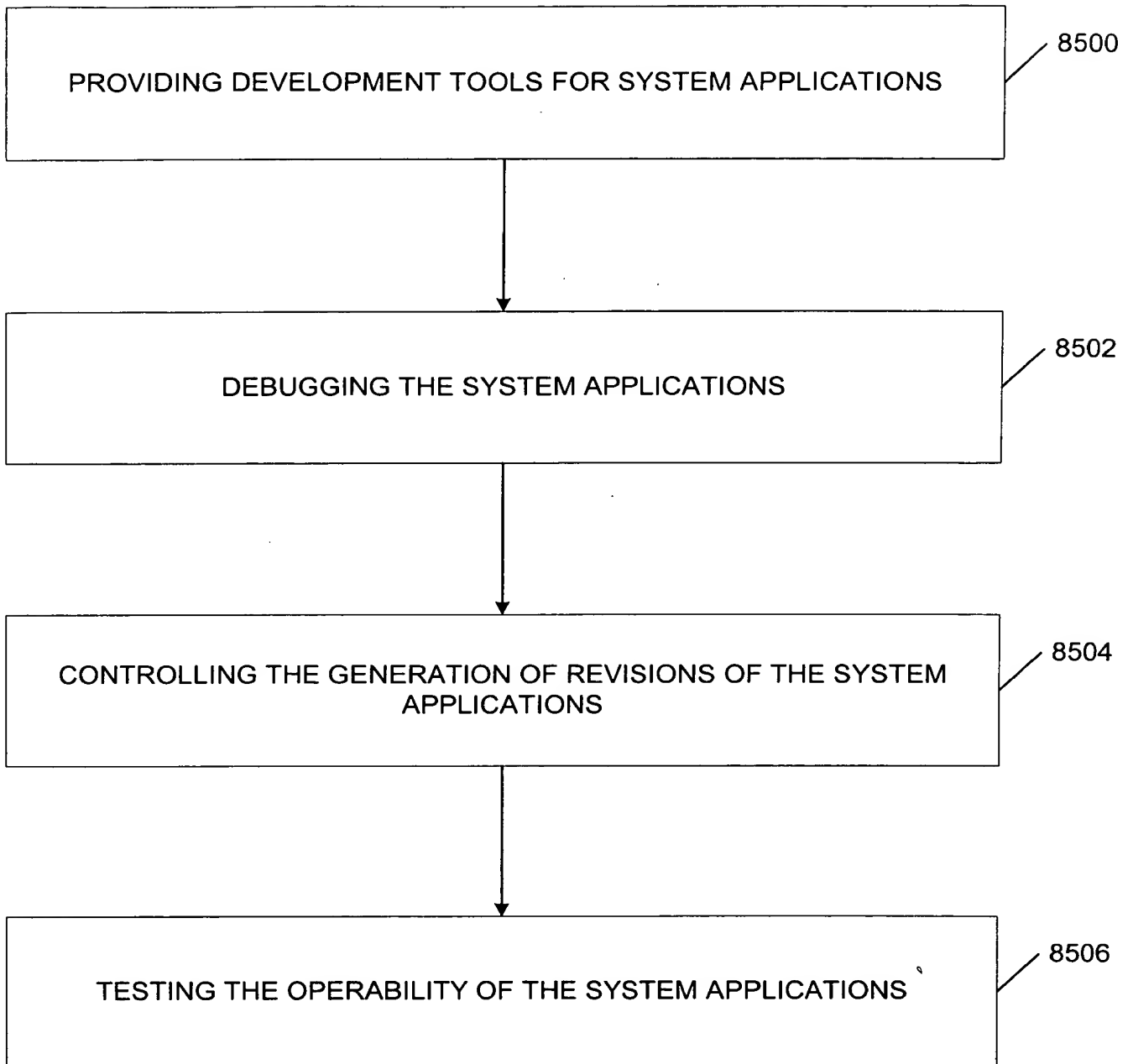
5328

Figure 83



5330

Figure 84



5332

Figure 85

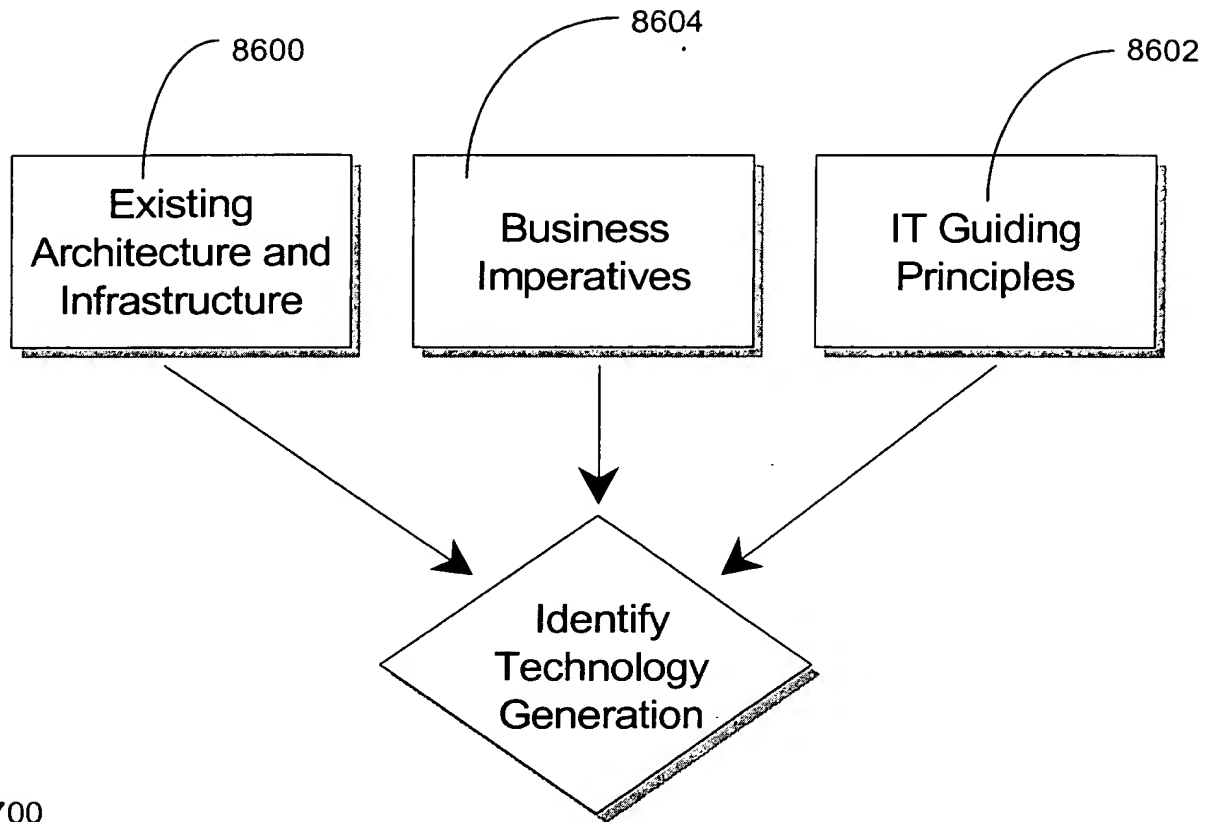


Figure 86

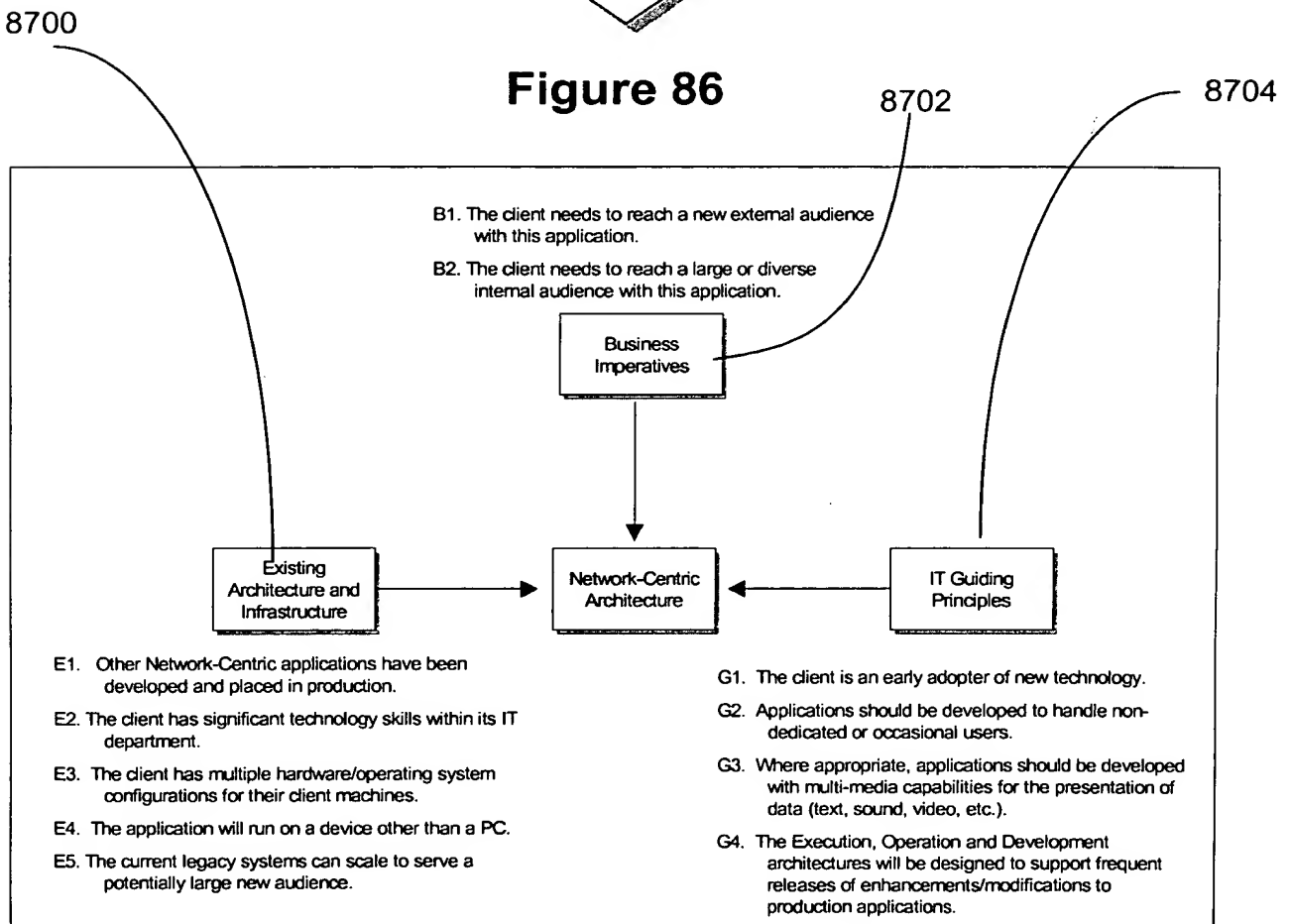


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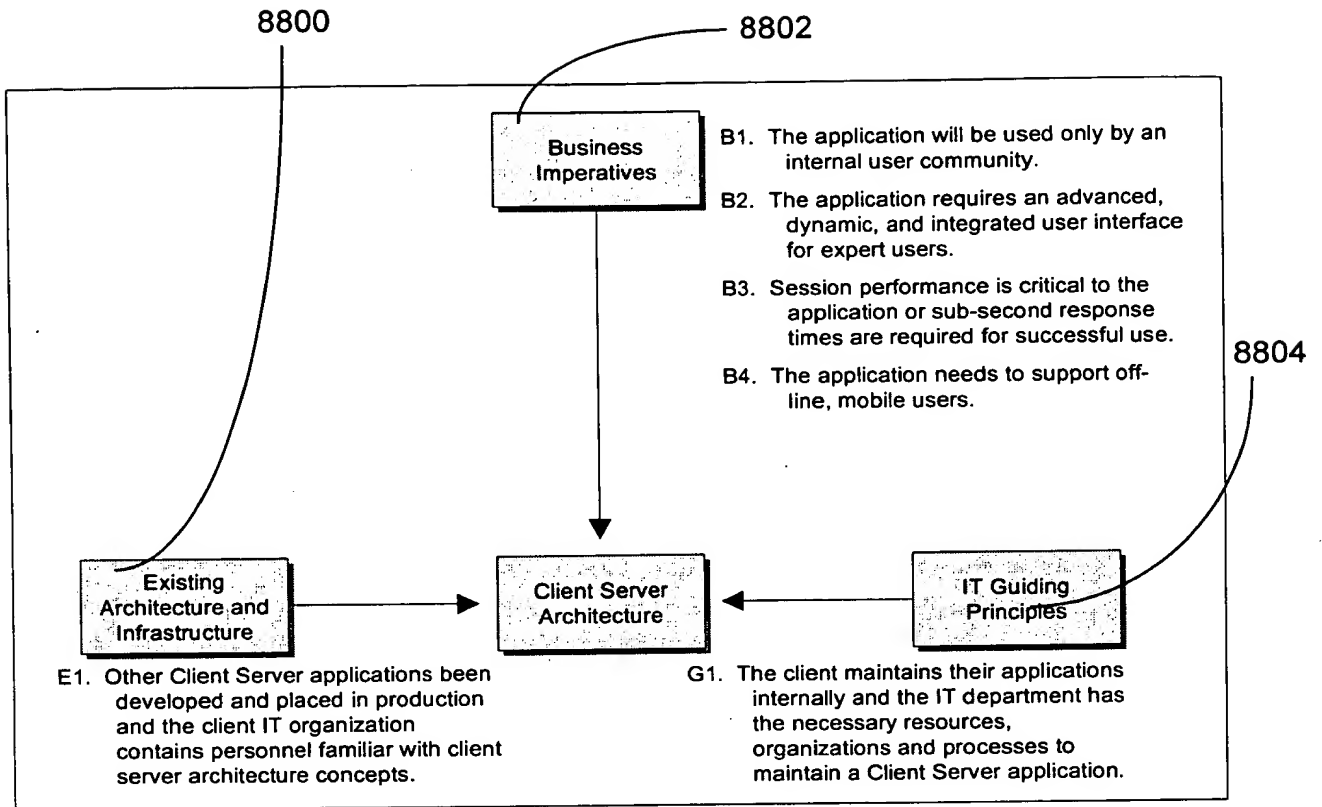


Figure 88

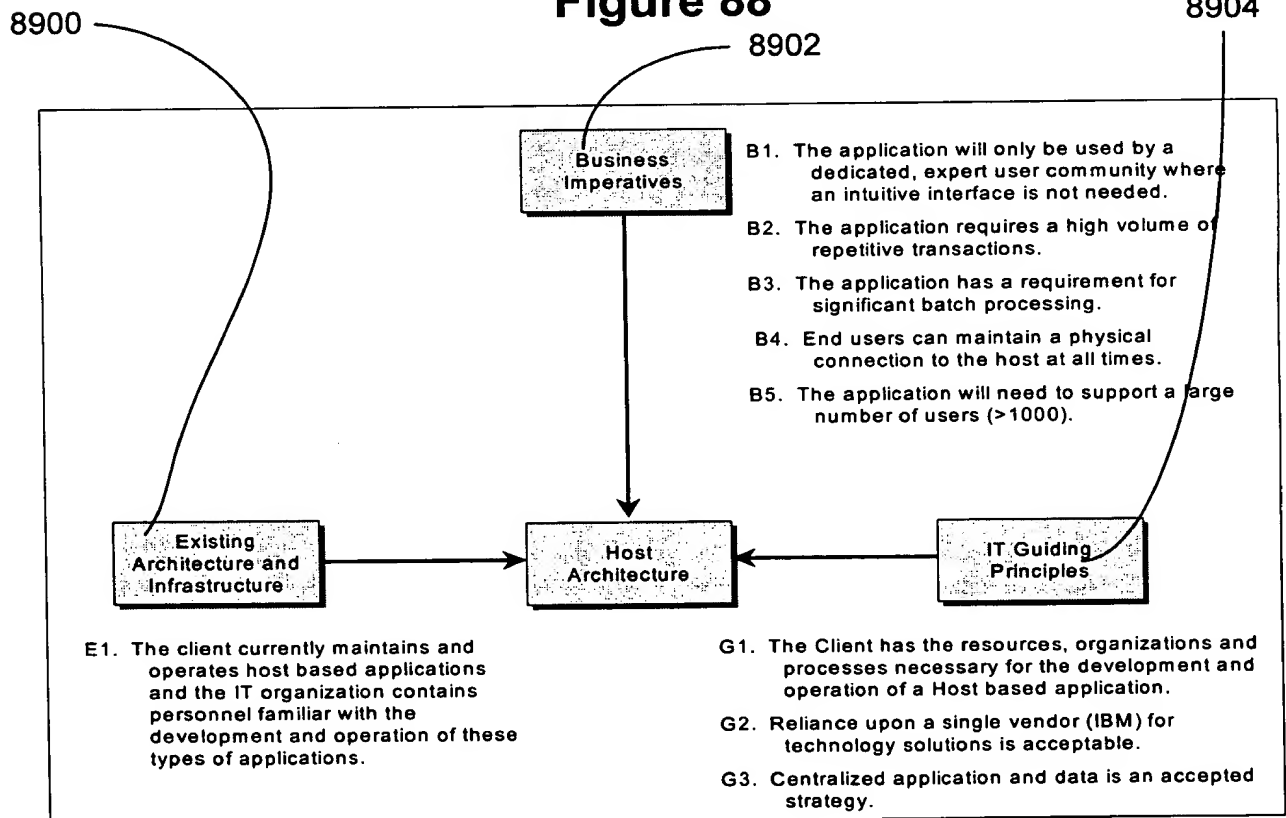


Figure 89

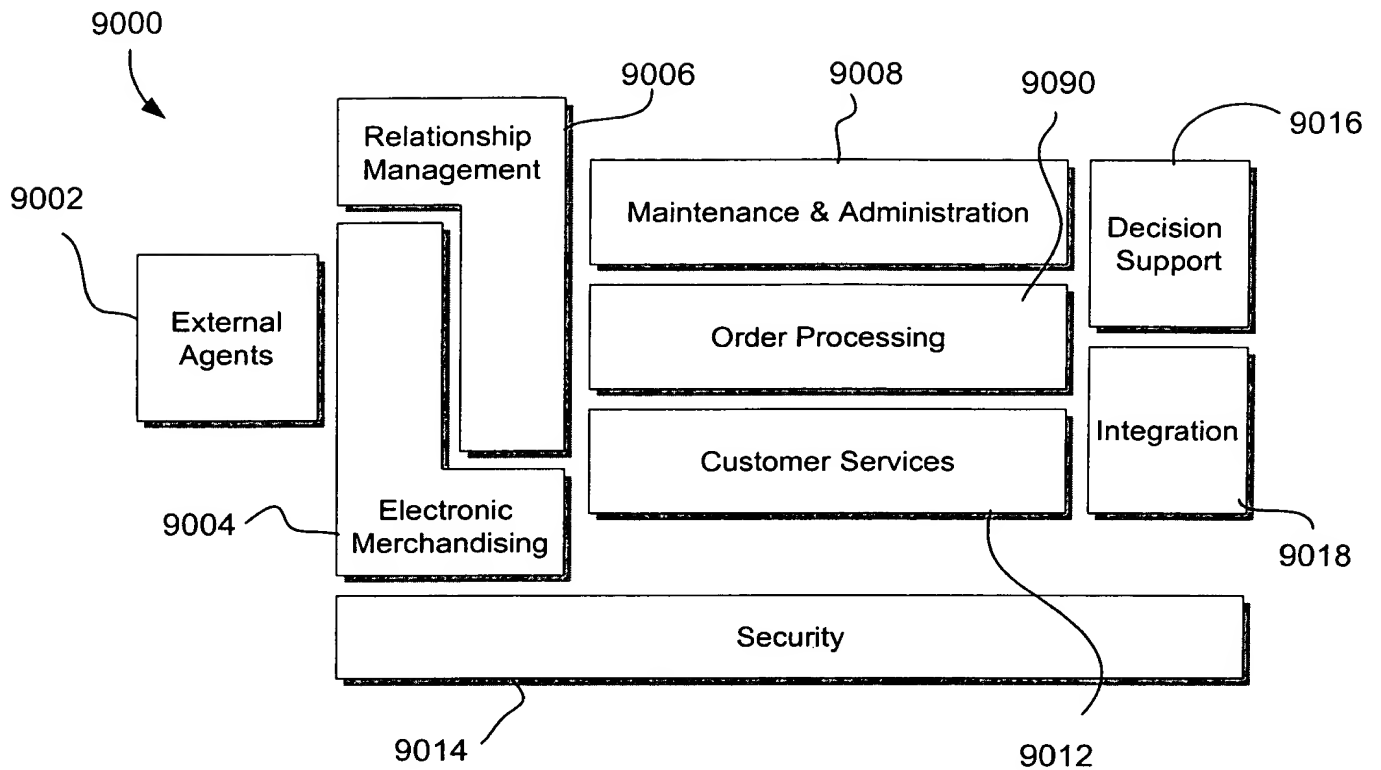


Figure 90

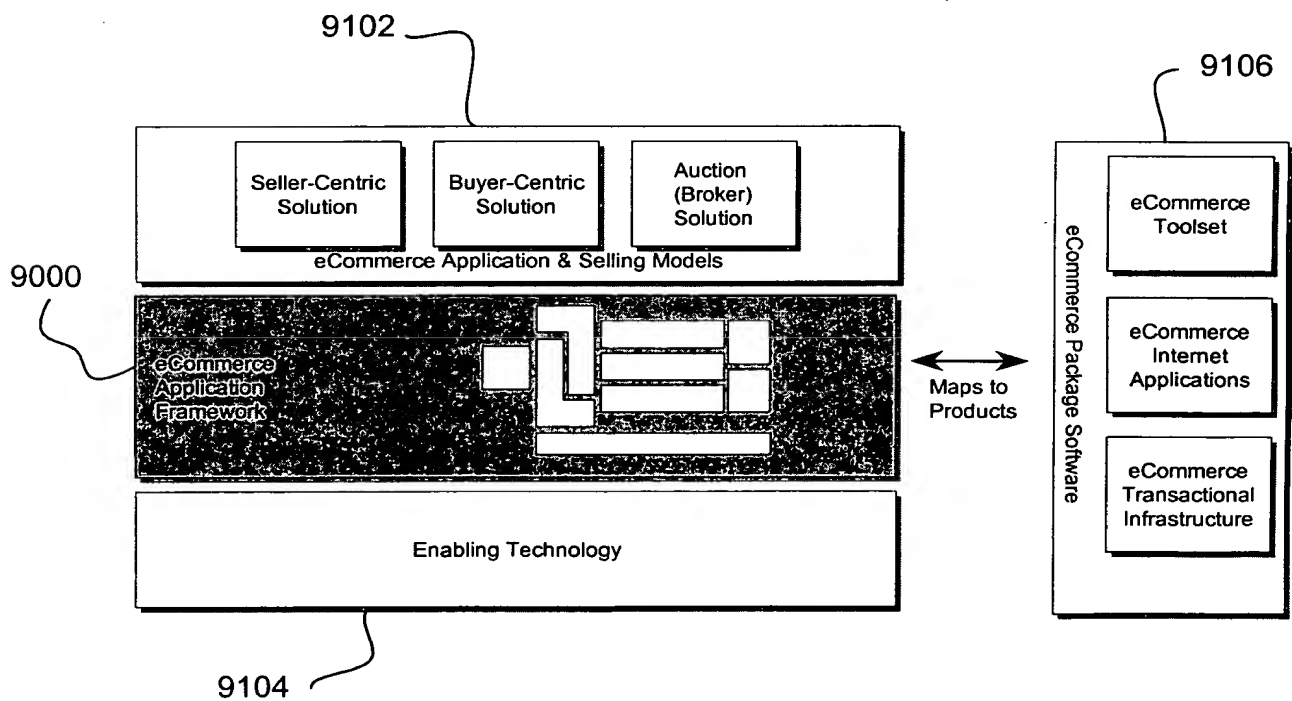


Figure 91

9200

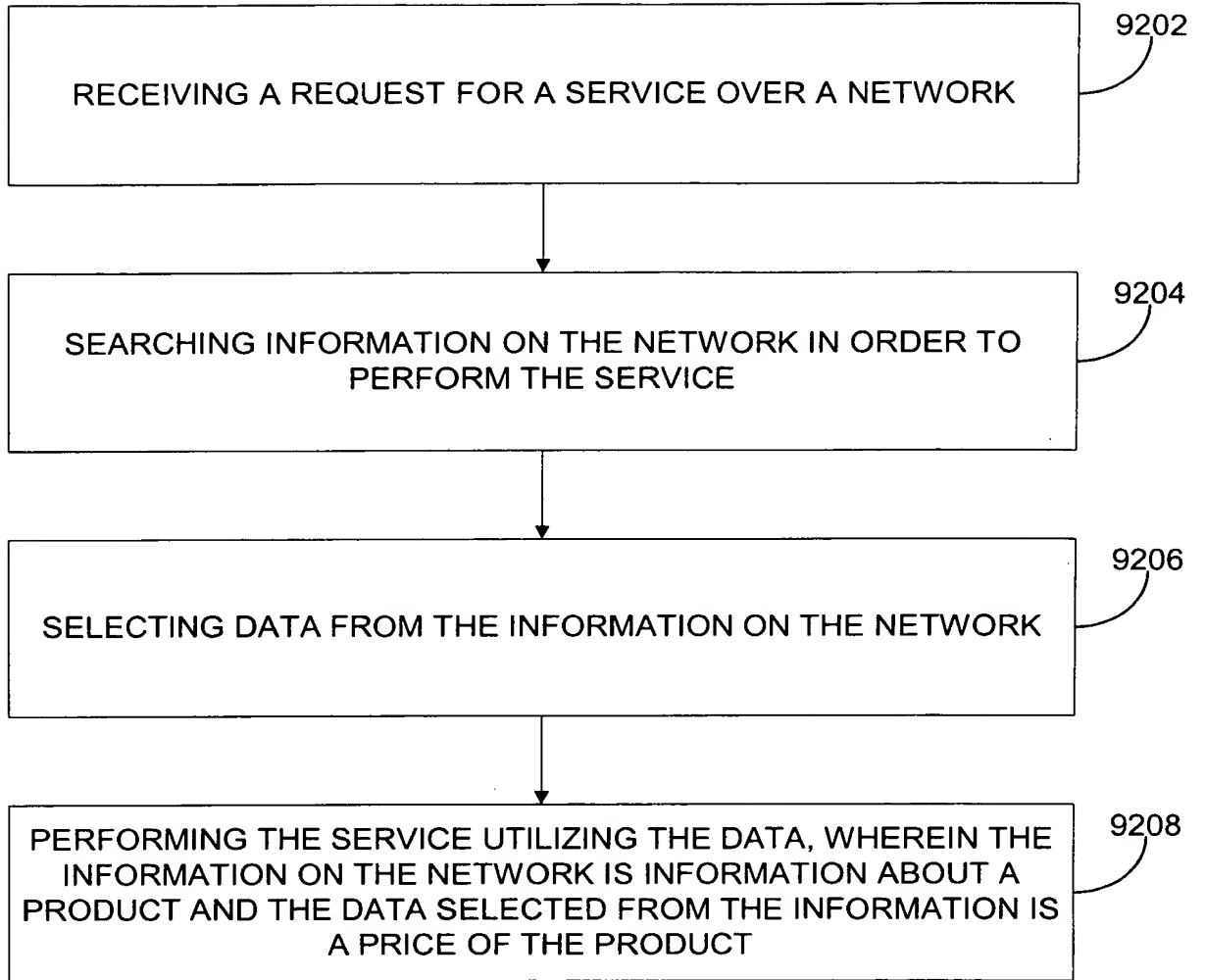
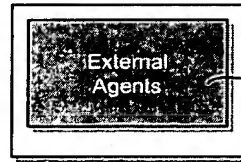


Figure 92

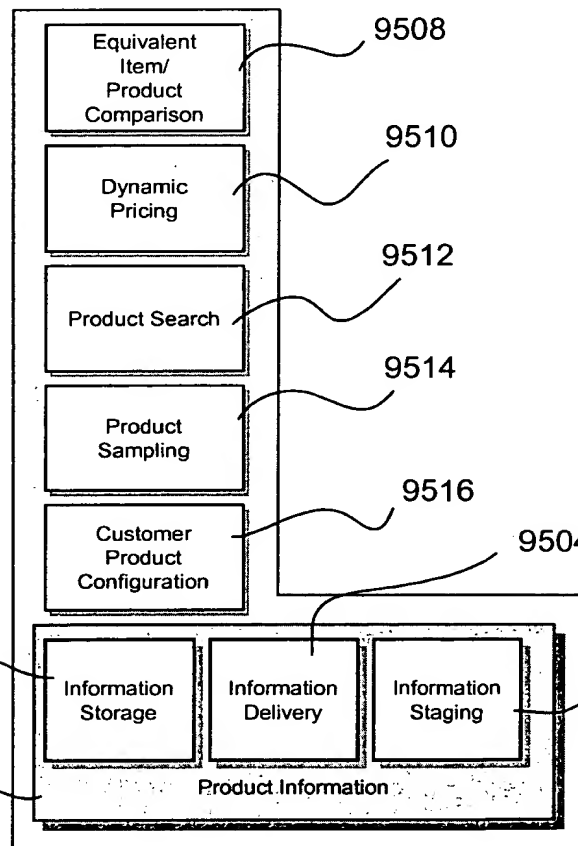
1002



9300

Figure 93

9004



9502

9500

9508

9510

9512

9514

9516

9504

9506

Figure 95

9400

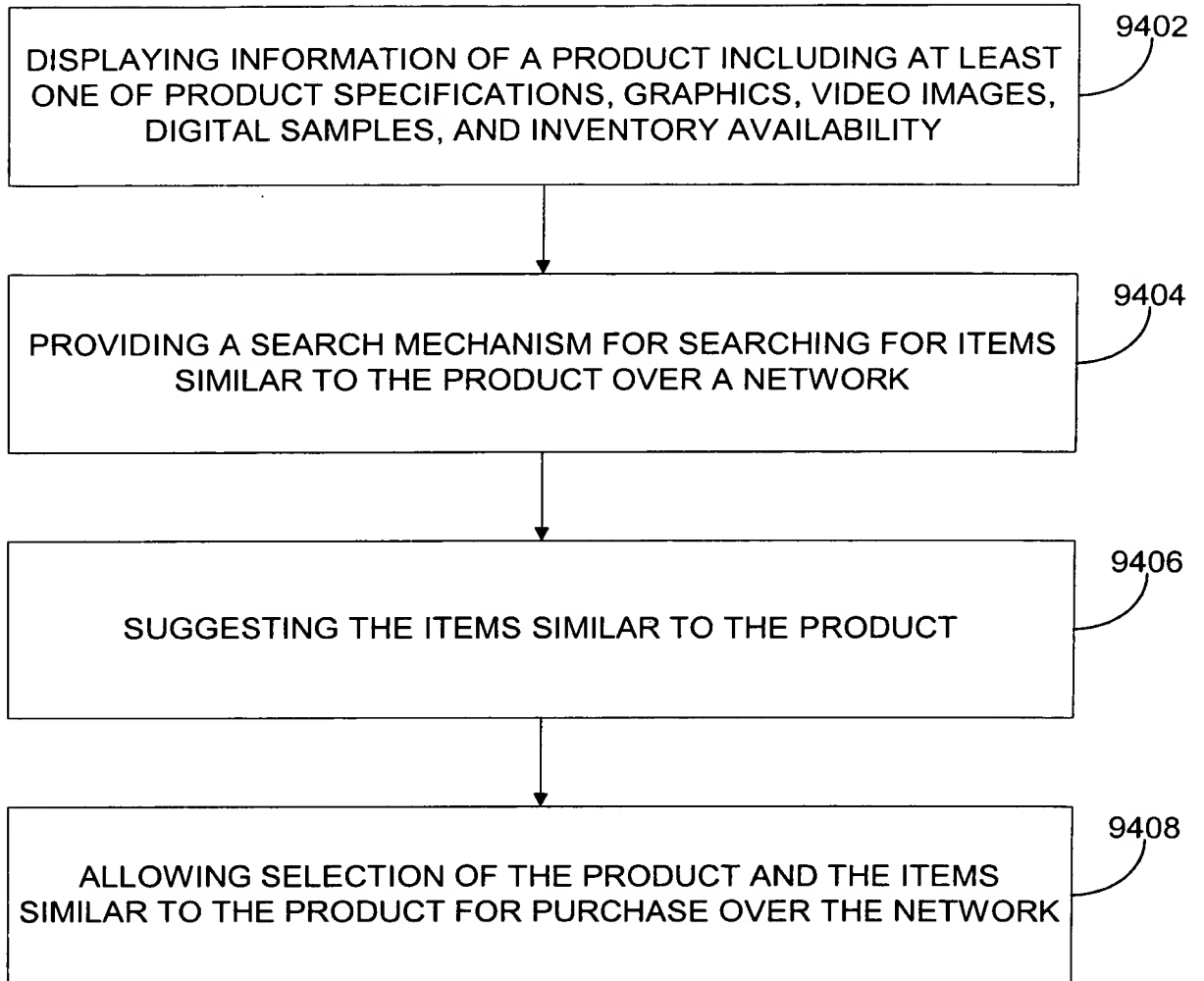


Figure 94

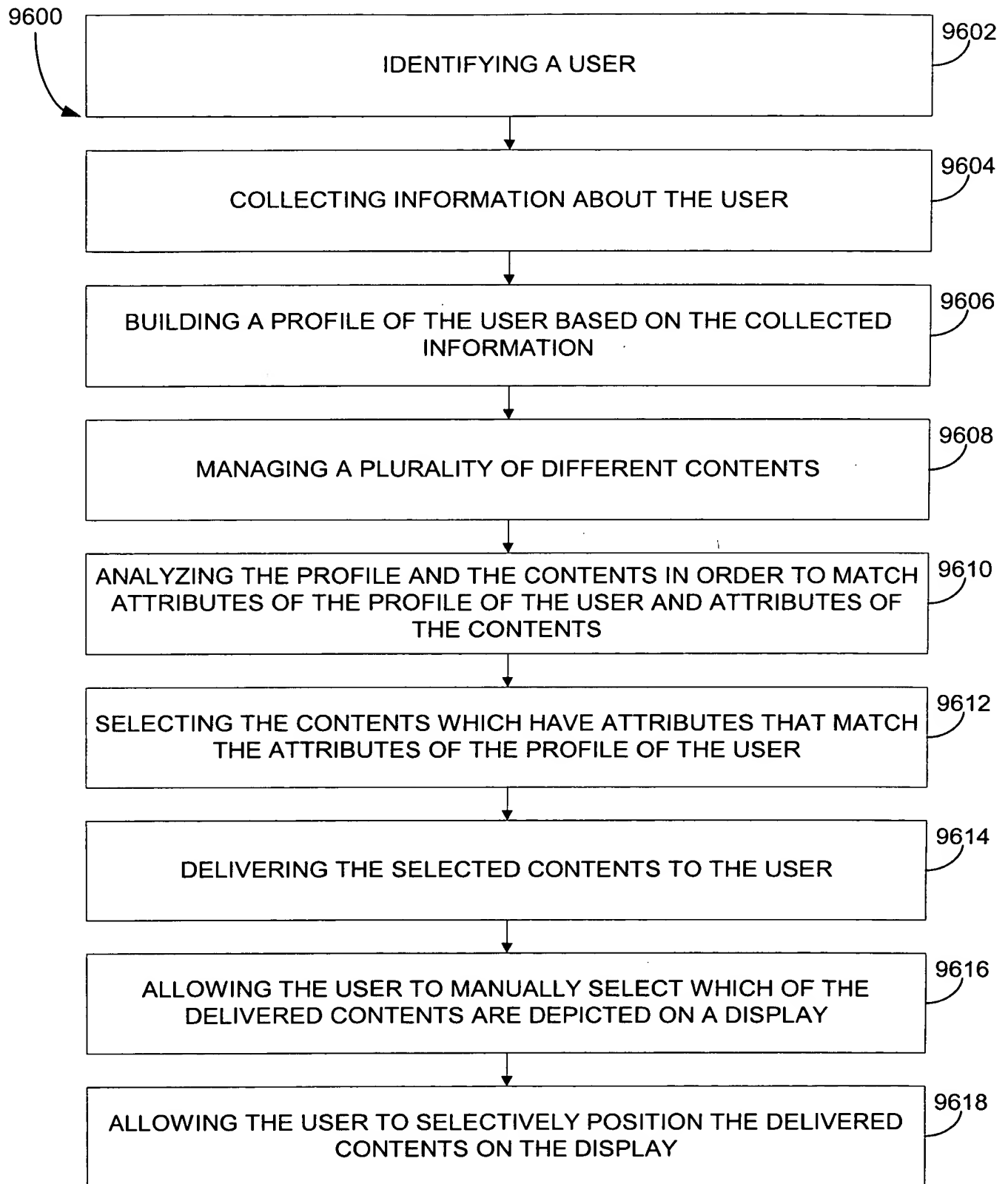


Figure 96

FIG. 97 is a block diagram of a system architecture. The system 9700 is divided into two main sections. The left section 9710 contains a vertical stack of modules: Identification 9712, Information Capture 9714, Content Catalog 9716, Matching Logic 9718, Content Merge & Delivery 9720, Administration, and Personalization. The right section 9730 contains a vertical stack of modules: Customer Selection 9732, Customer Acquisition 9734, Customer Extension 9736, Customer Retention, and Interactive Marketing 9702. A reference numeral 9006 points to the top of the left section.

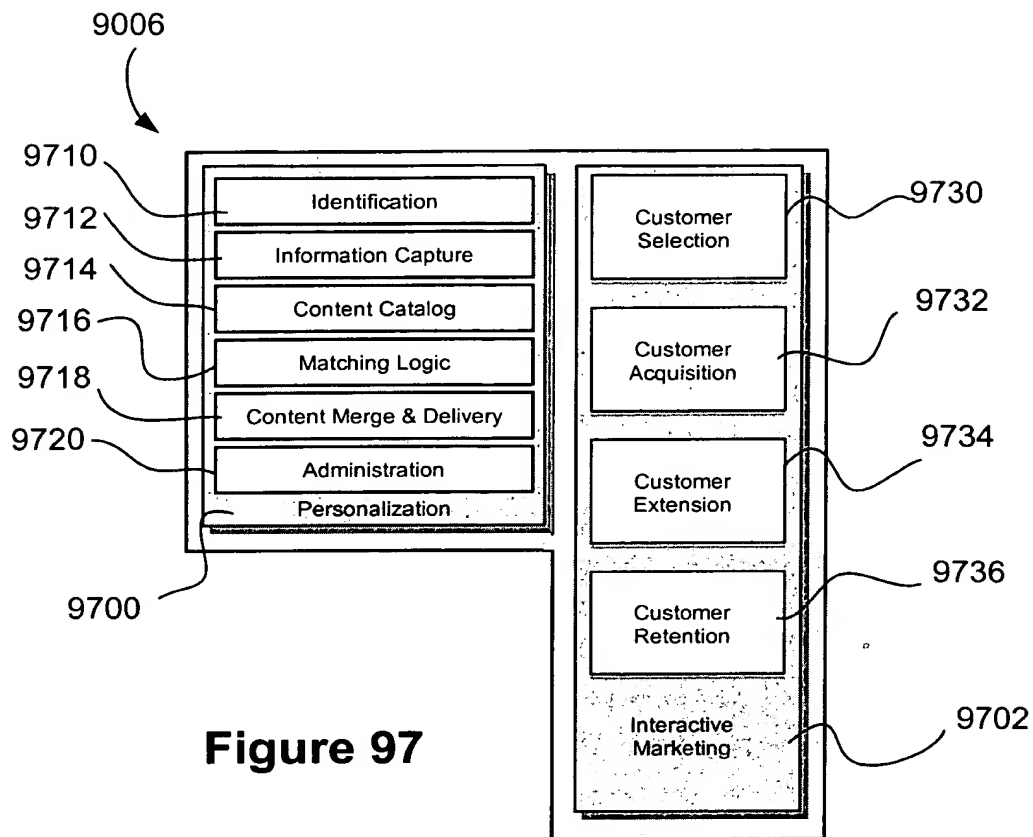


Figure 97

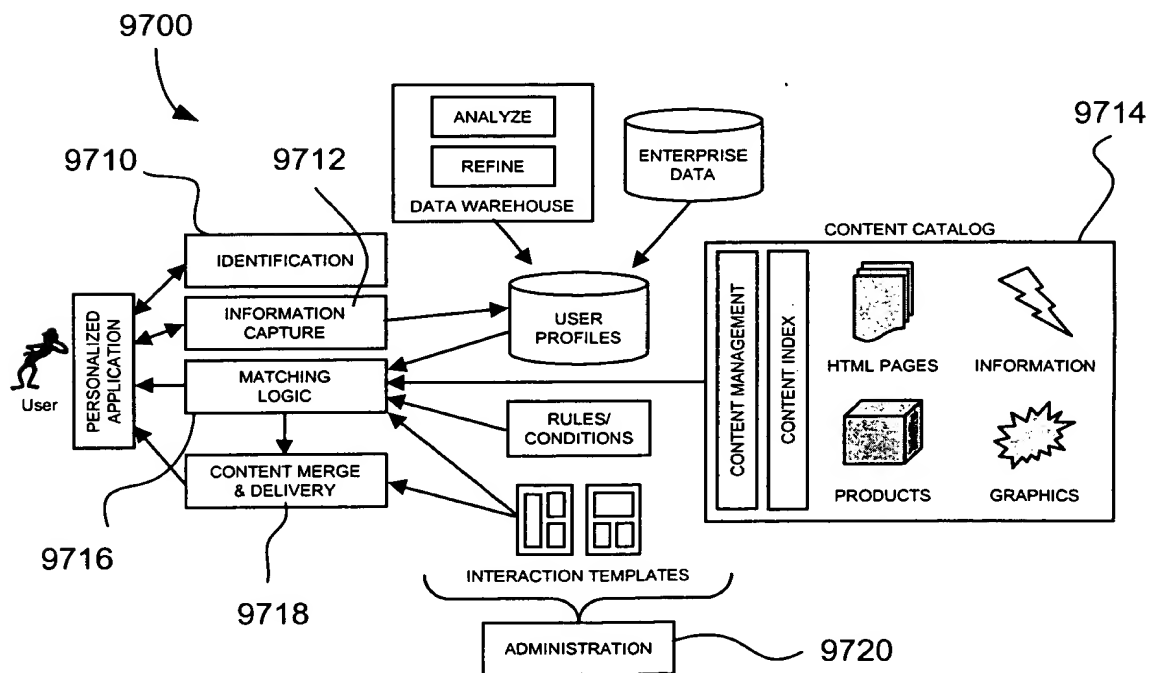


Figure 98

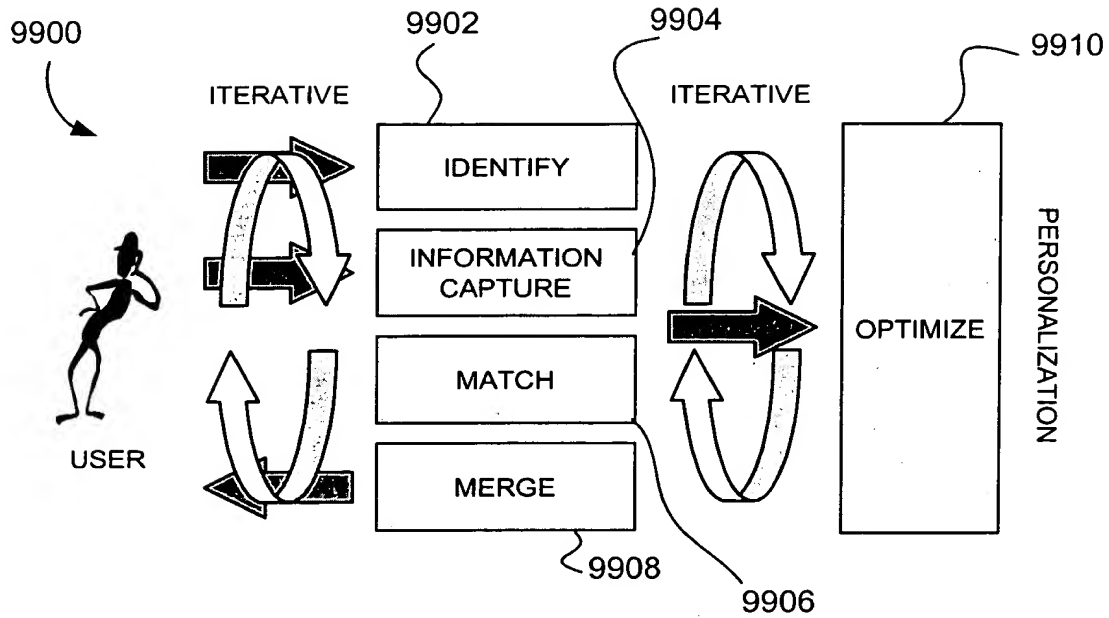


Figure 99

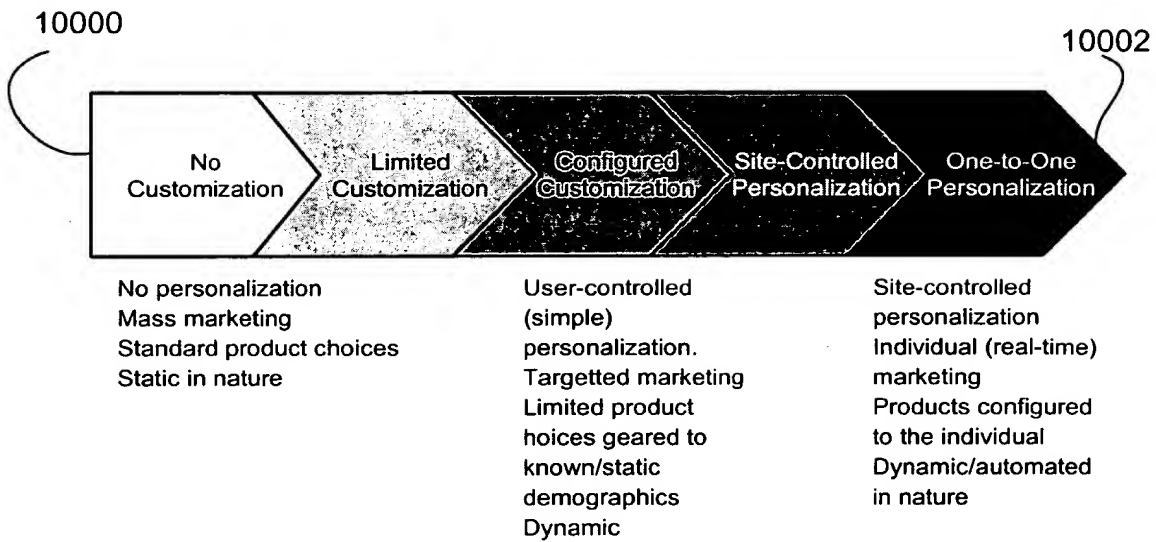


Figure 100

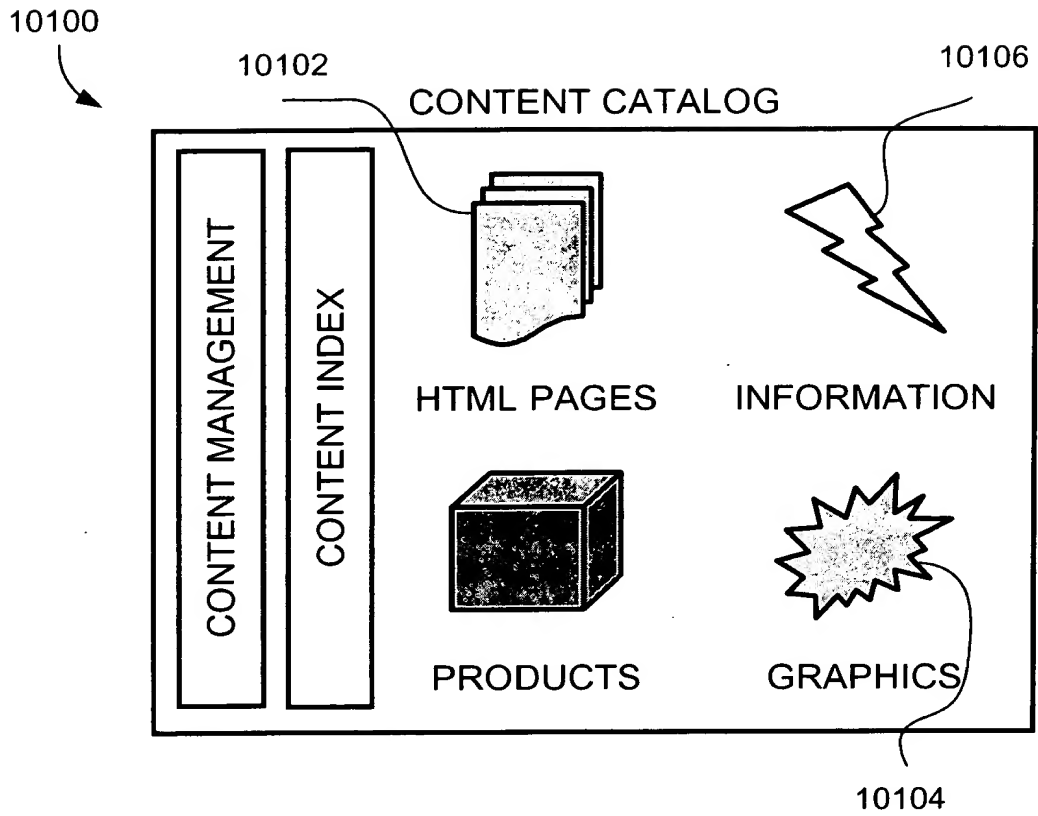


Figure 101

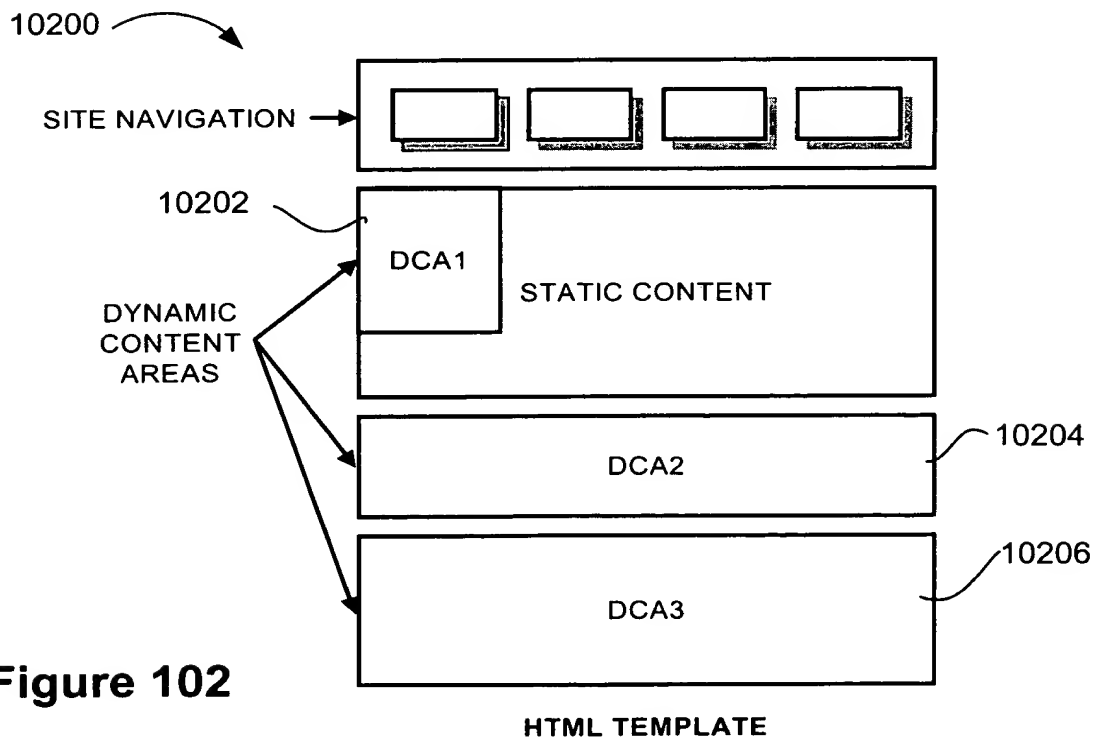


Figure 102

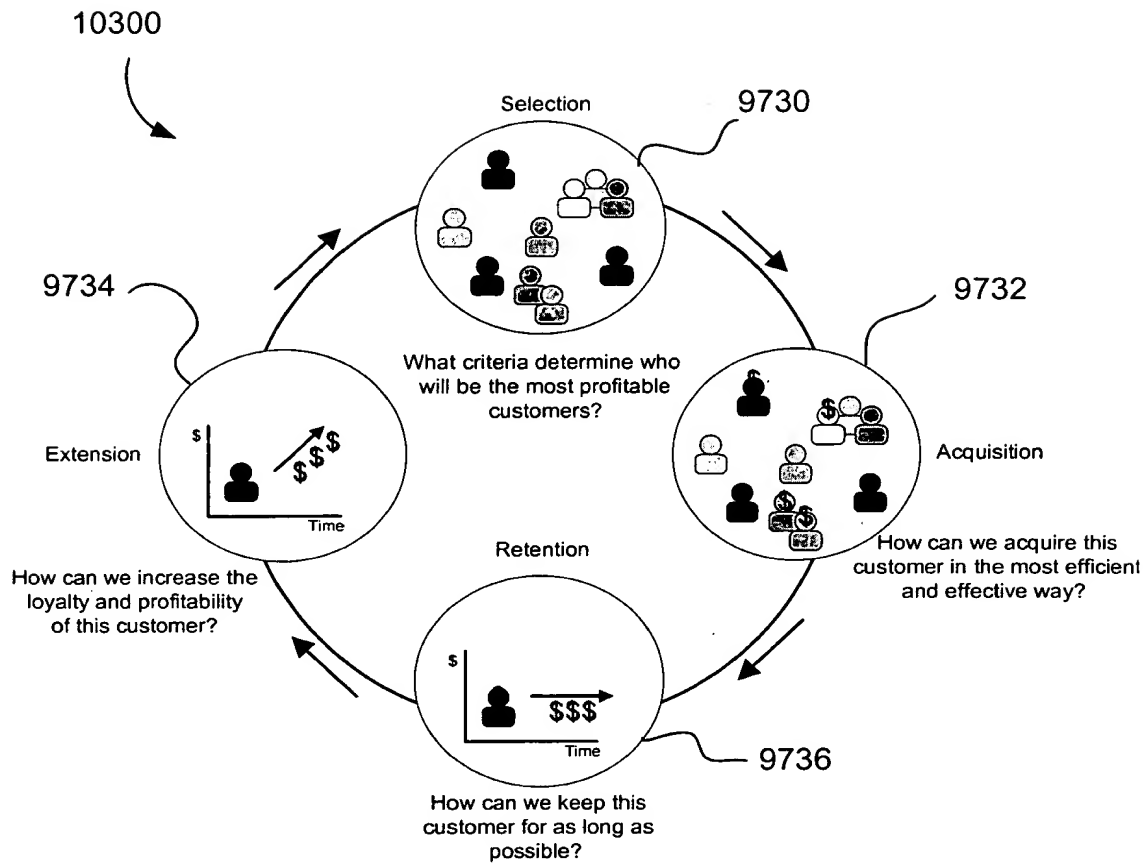


Figure 103

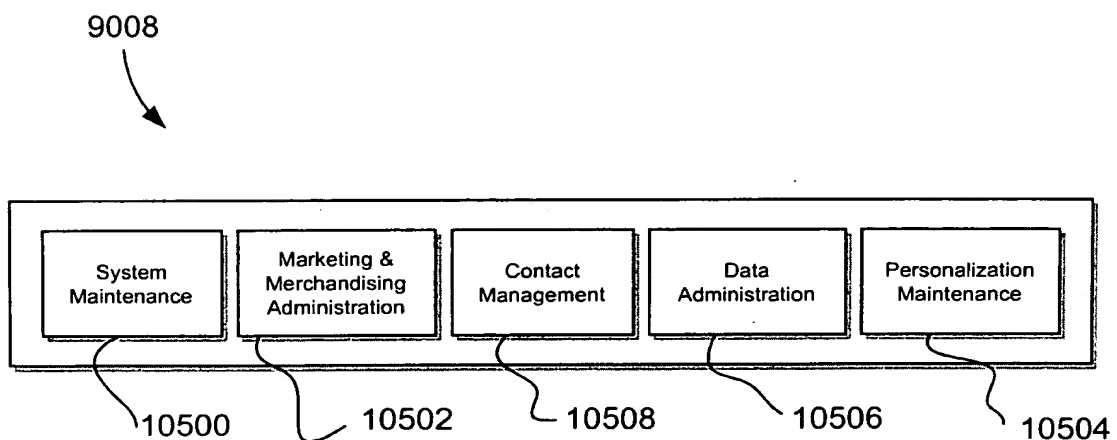


Figure 105

10400

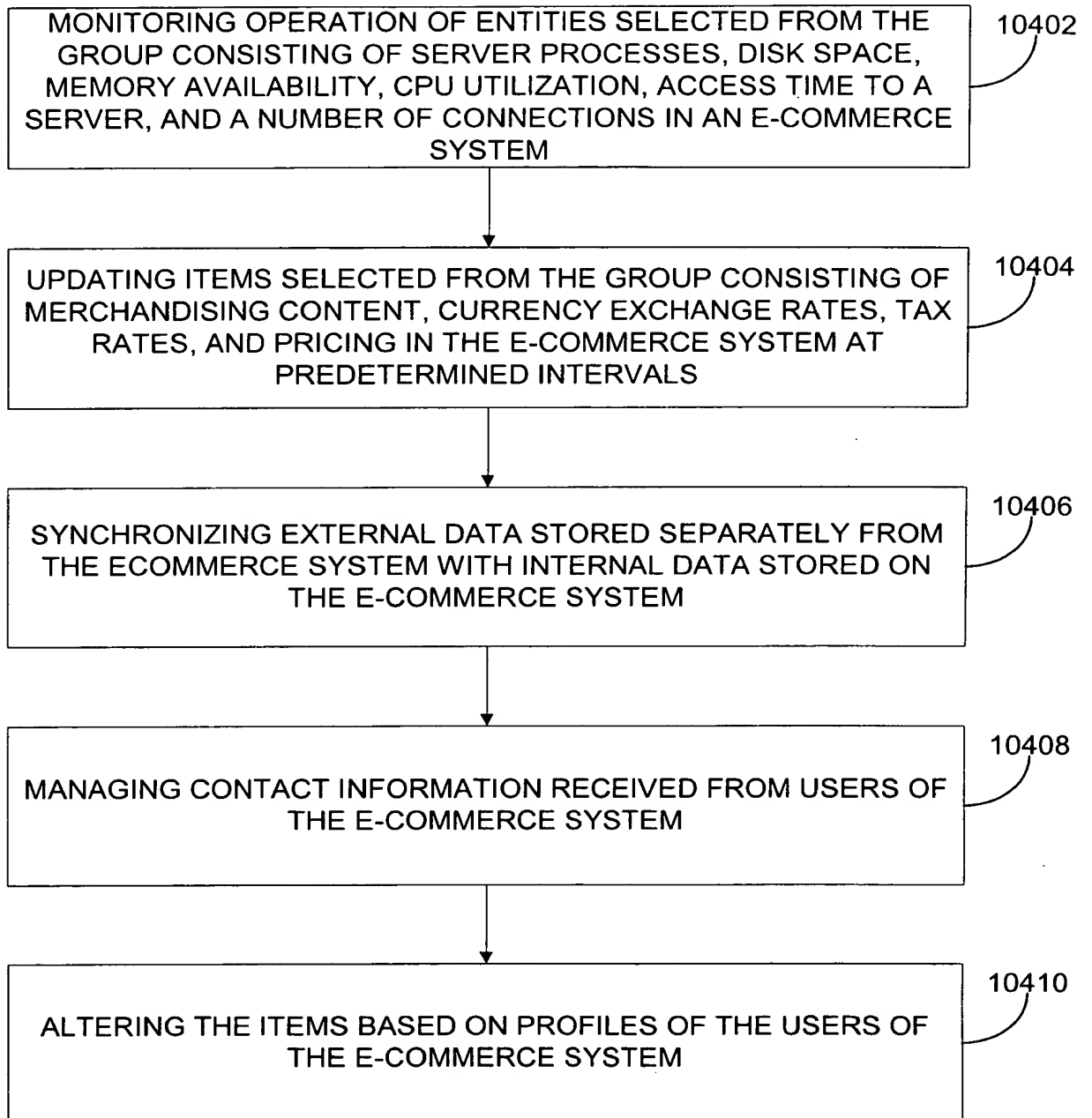


Figure 104

9010

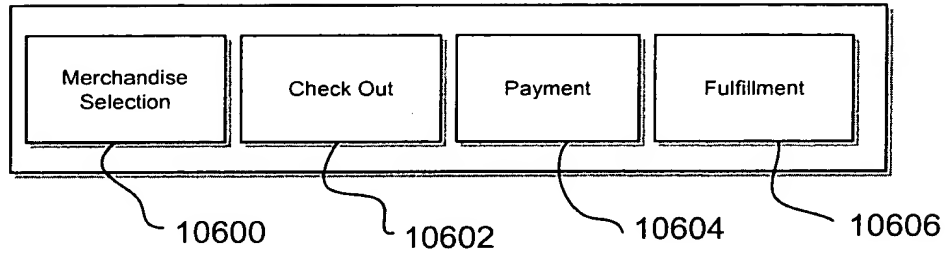


Figure 106

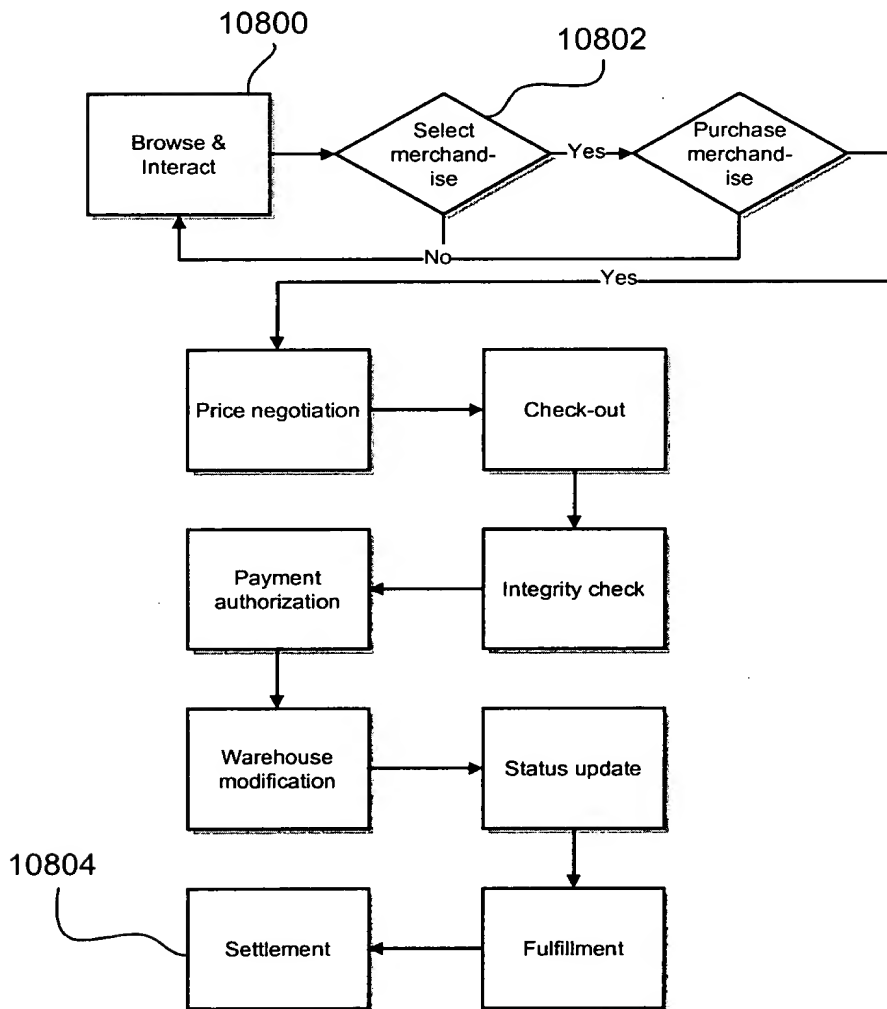


Figure 108

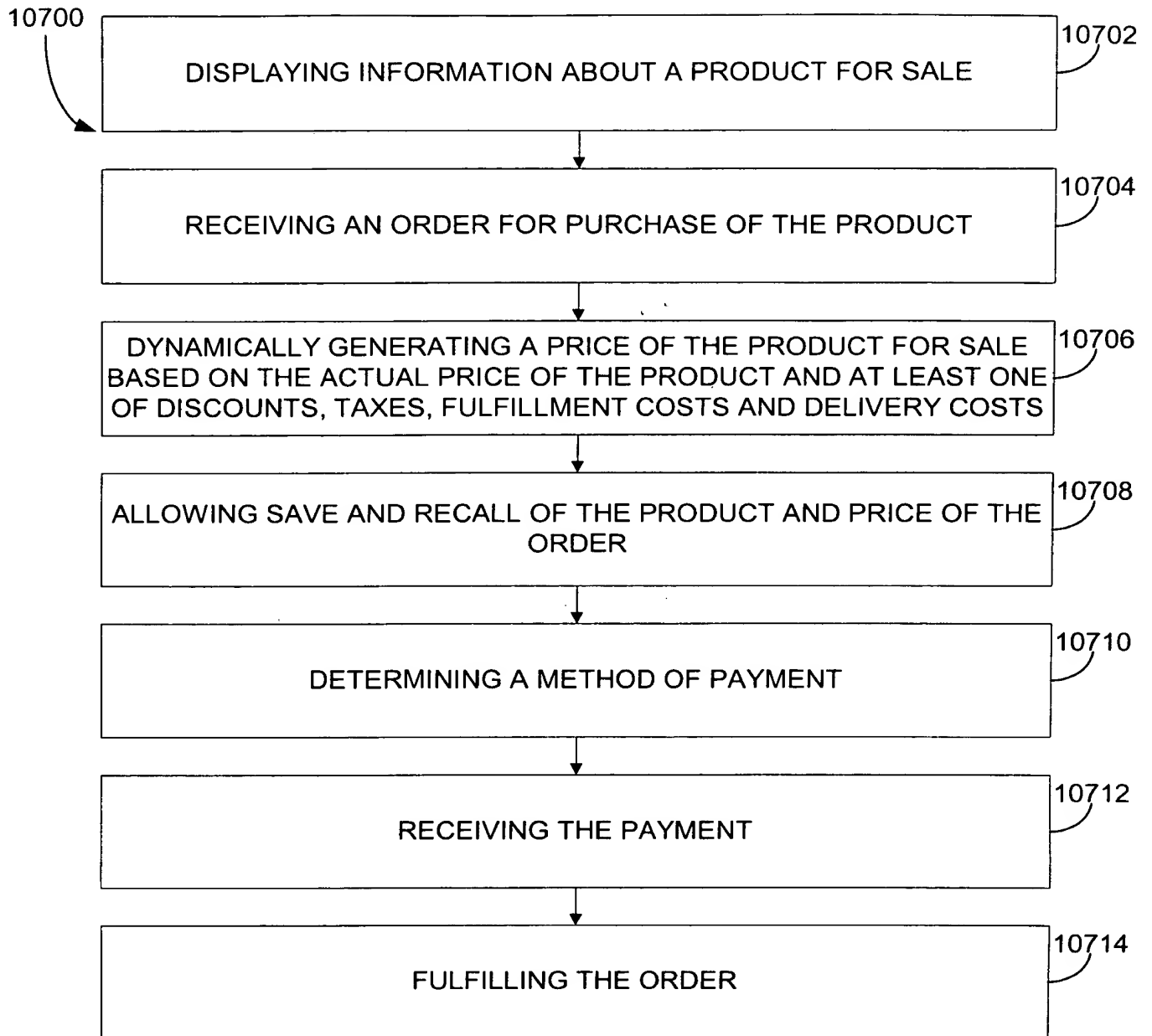


Figure 107

10900

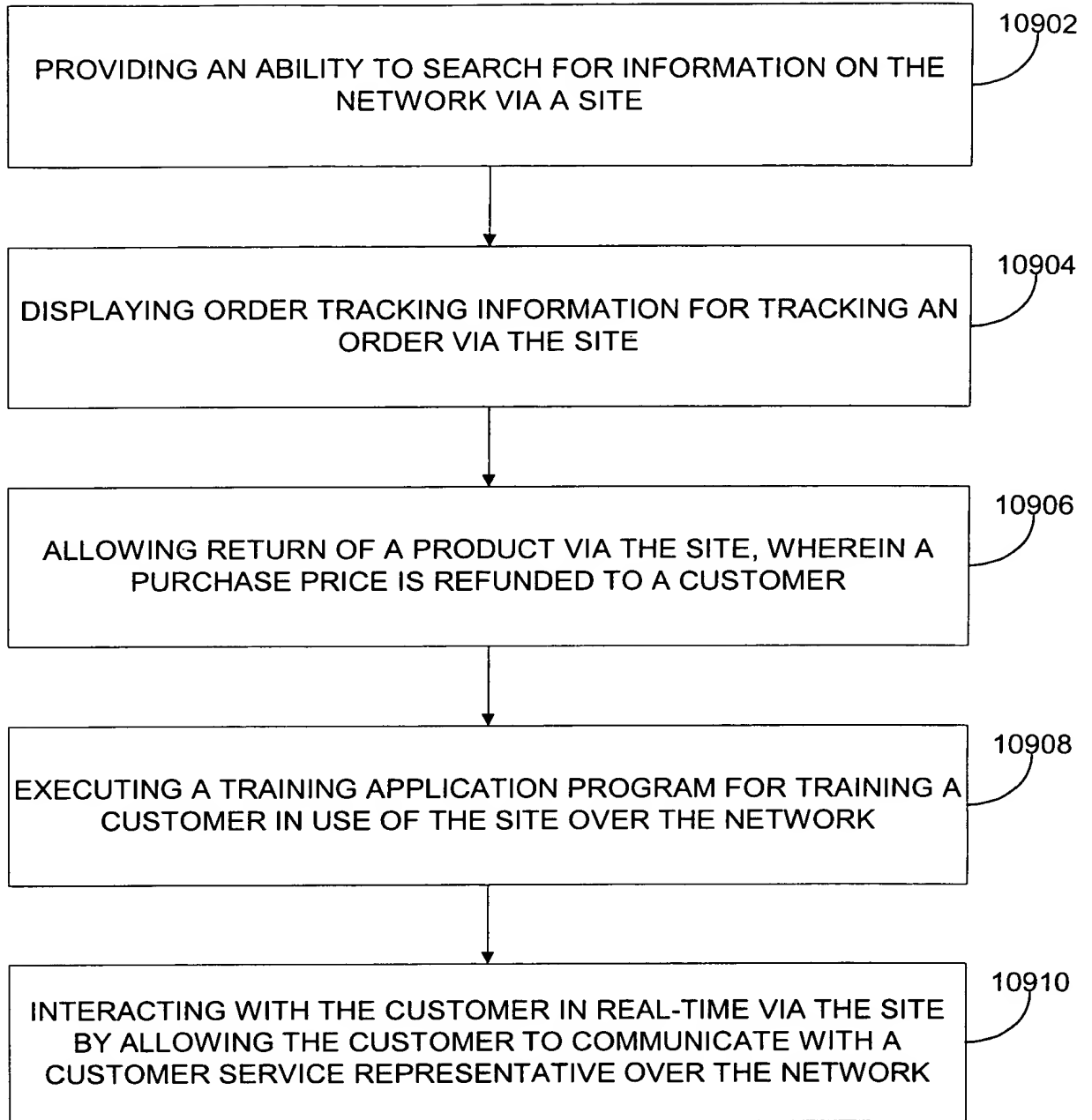


Figure 109

9012

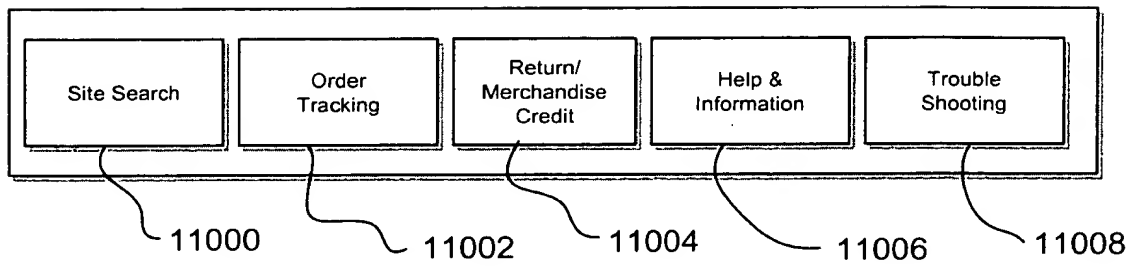


Figure 110

9014

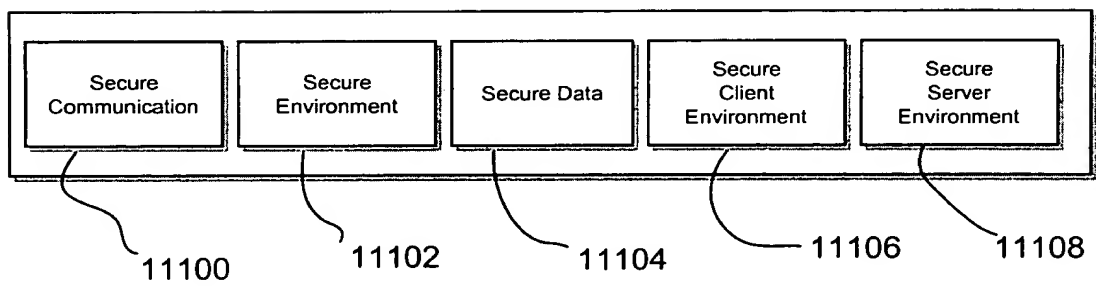


Figure 111

11200

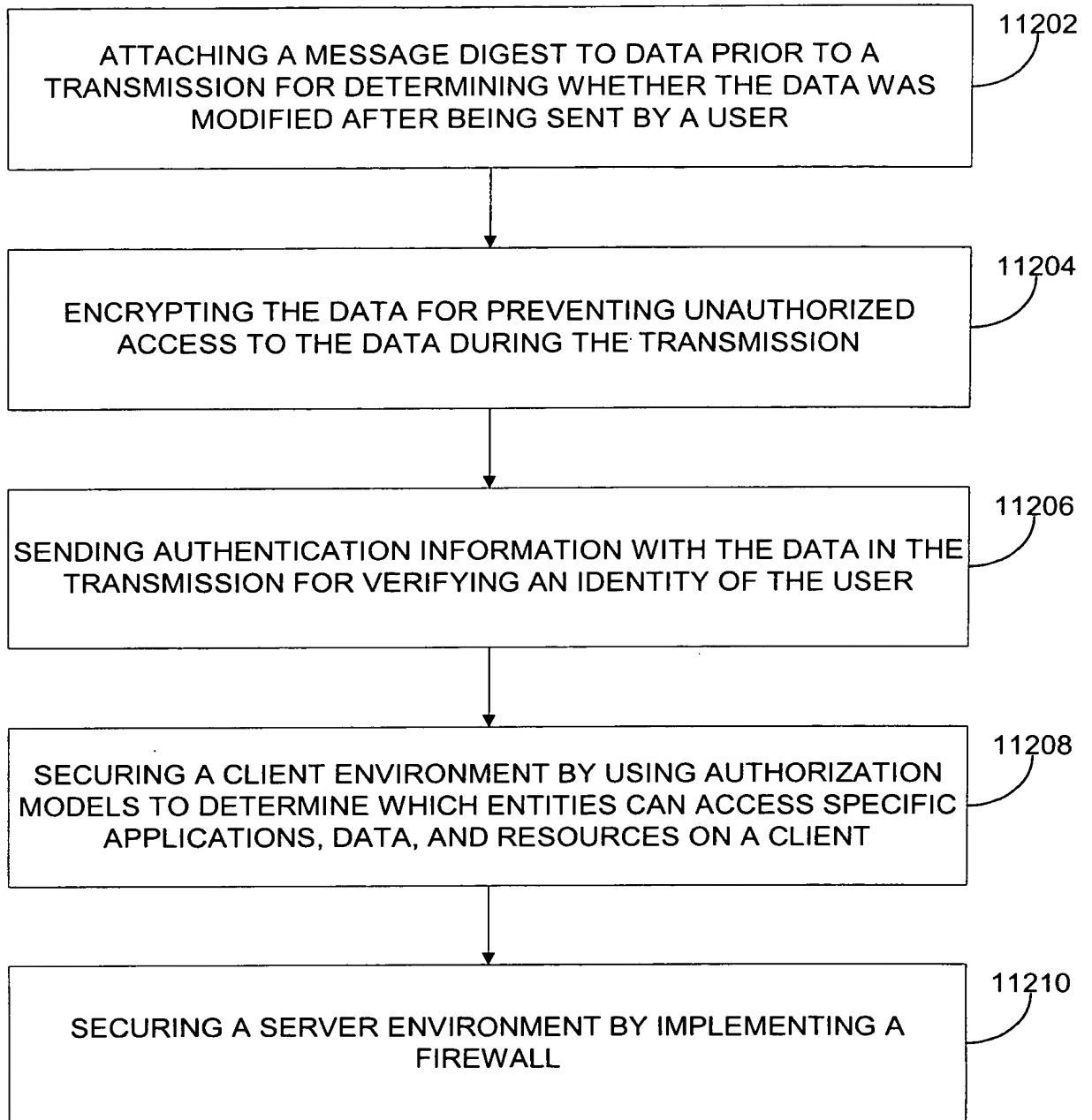


Figure 112

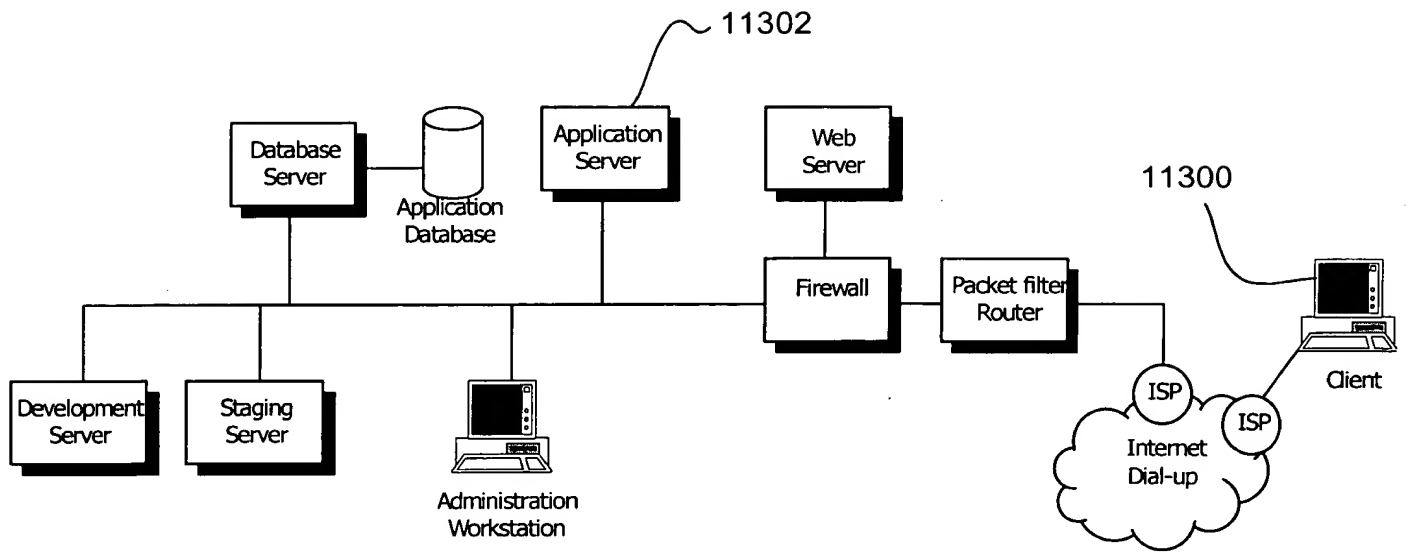


Figure 113

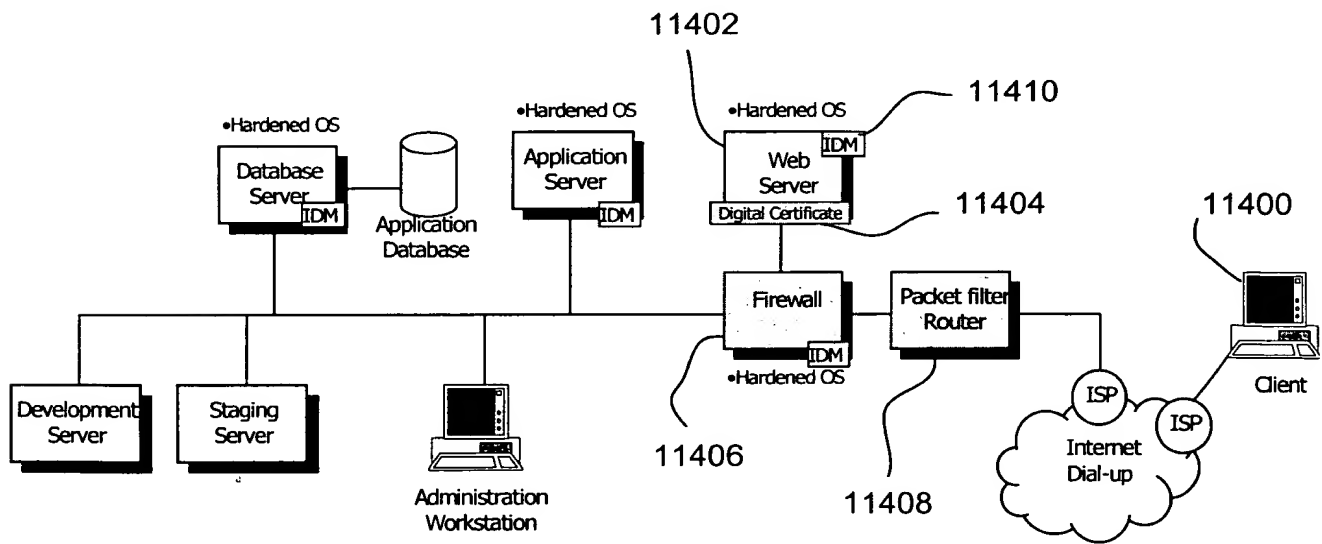


Figure 114

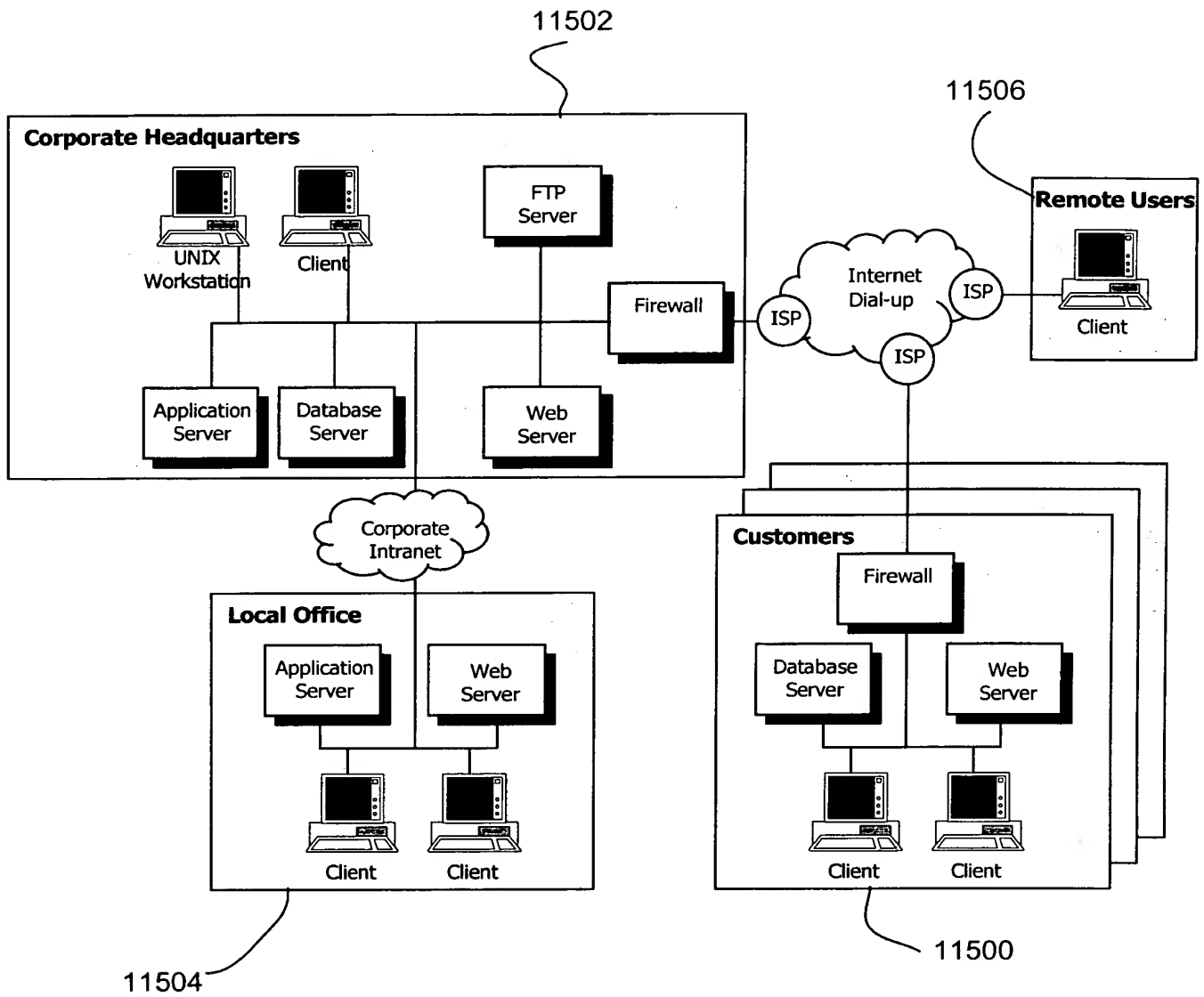


Figure 115

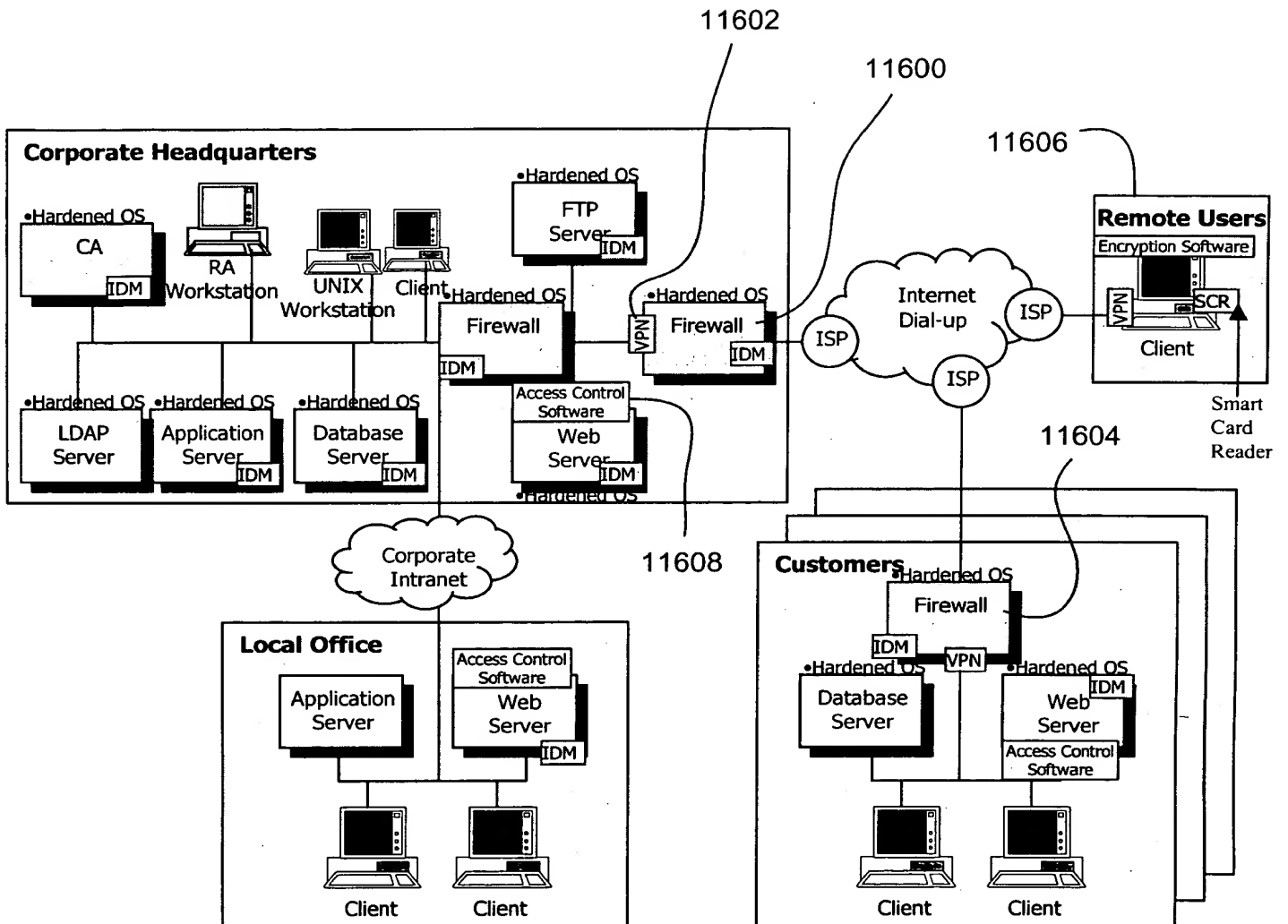


Figure 116

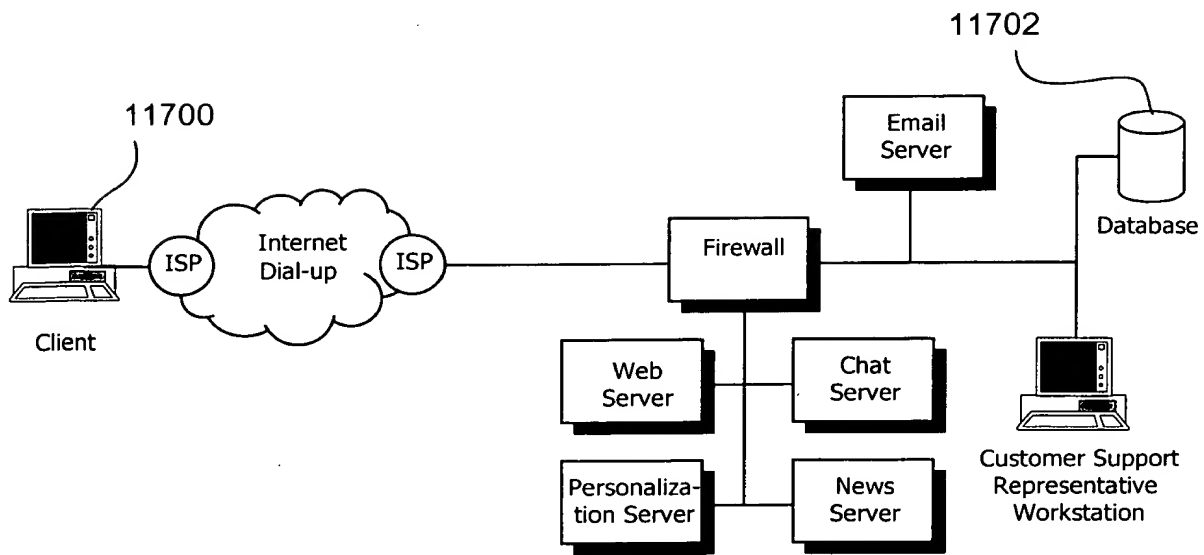


Figure 117

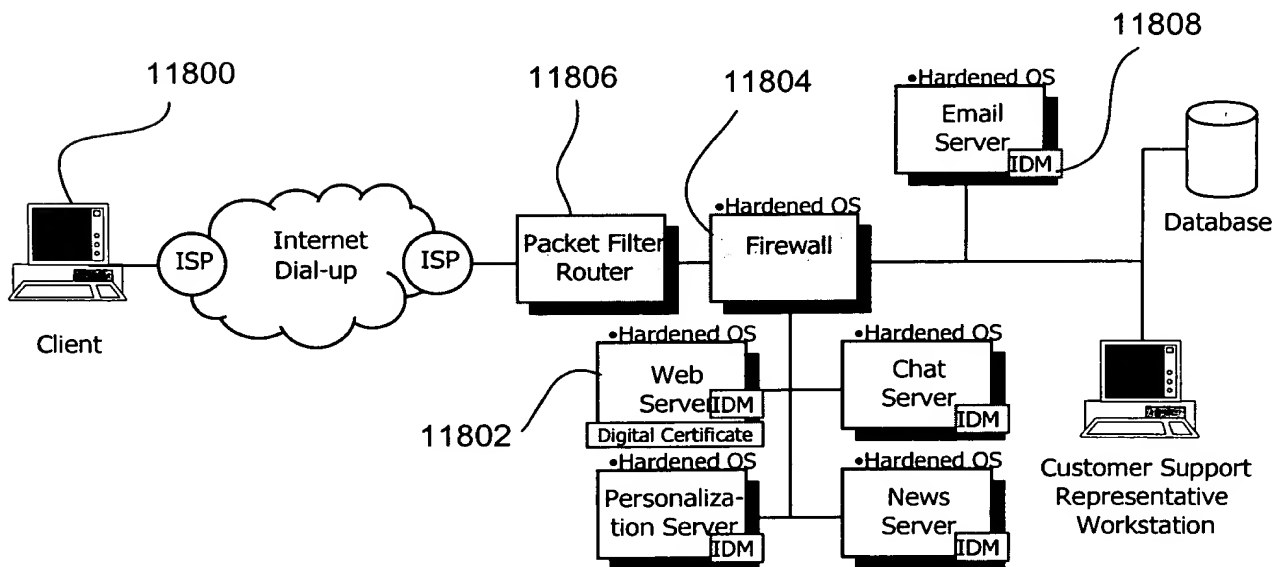


Figure 118

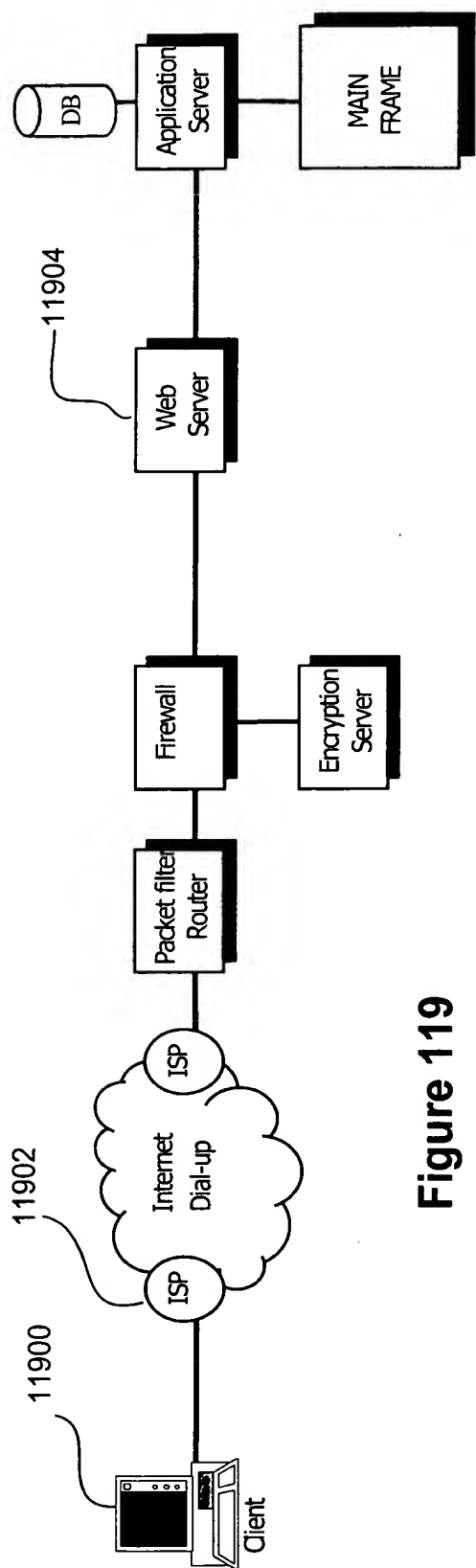


Figure 119

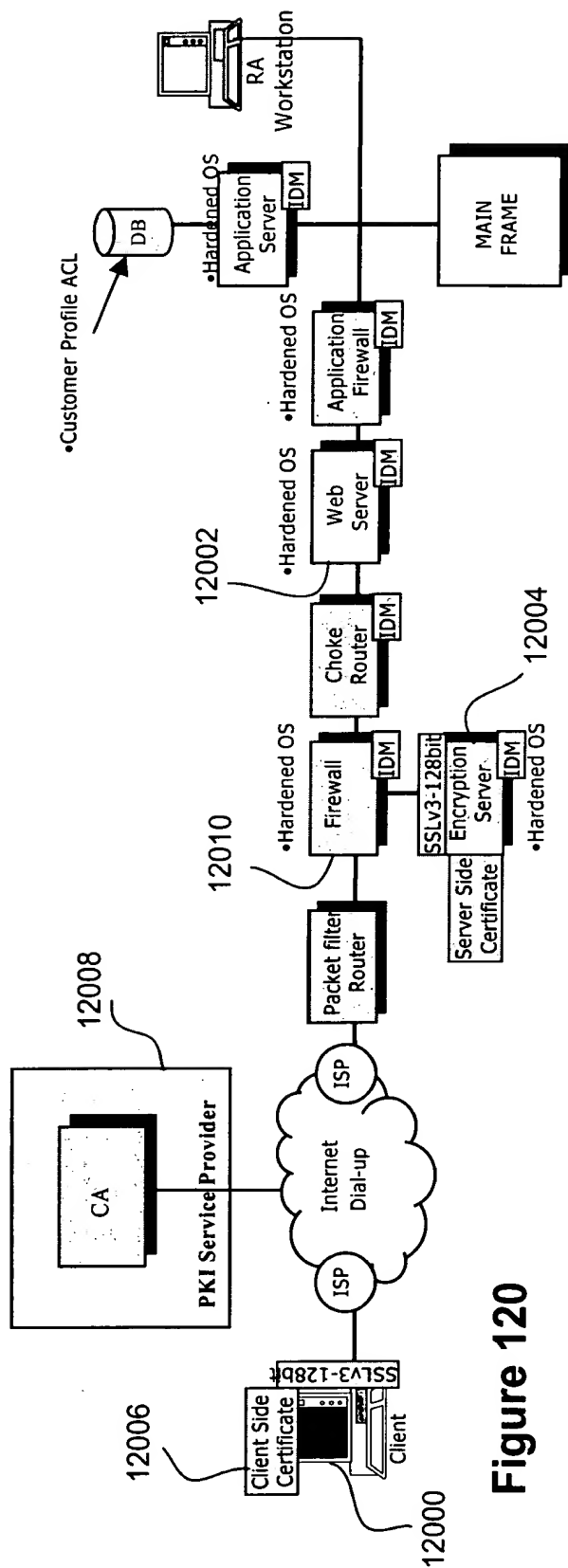


Figure 120

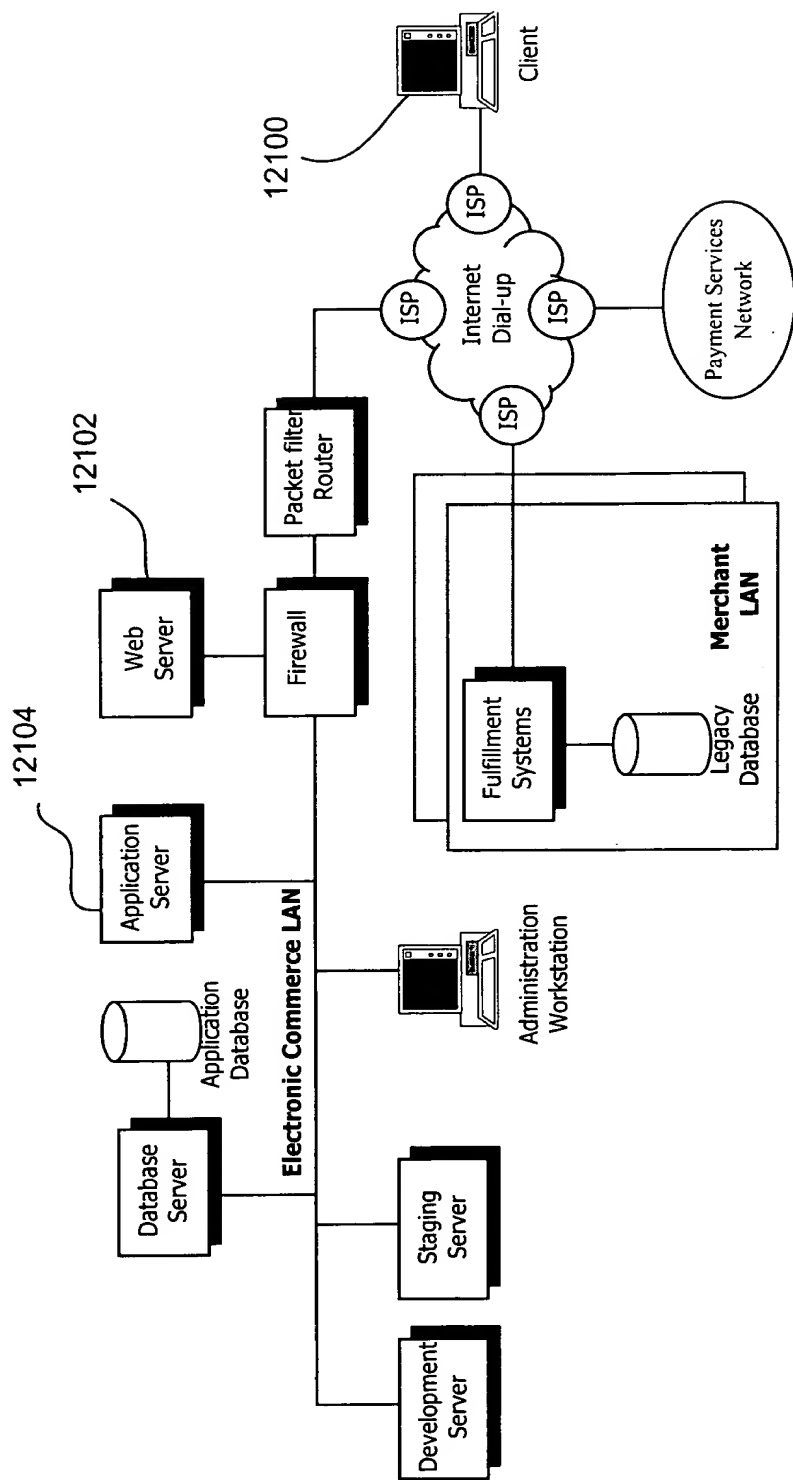


Figure 121

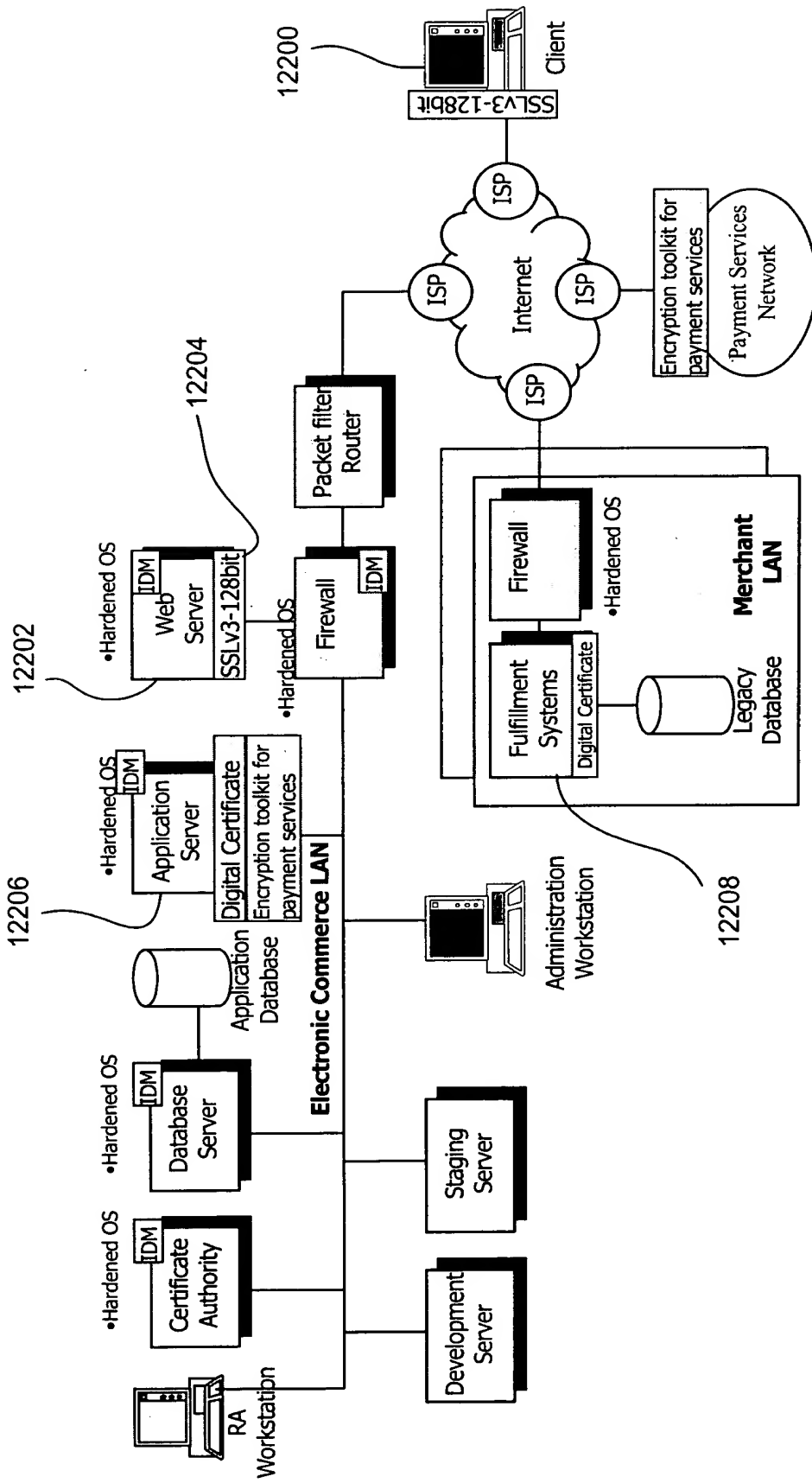


Figure 122

12300

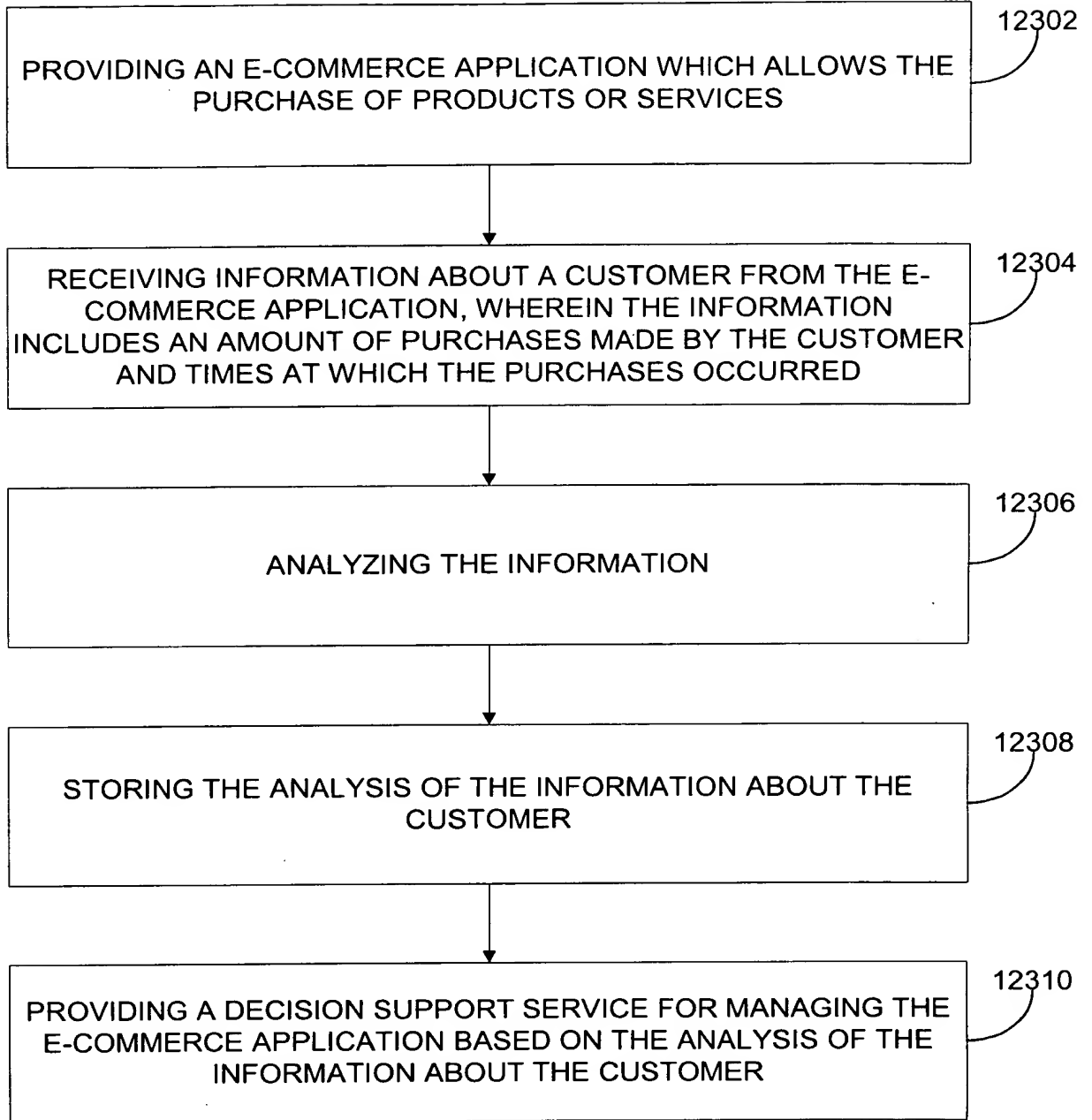


Figure 123

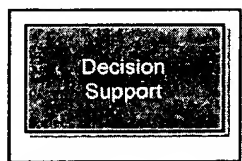


Figure 124

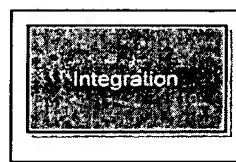


Figure 125

12600

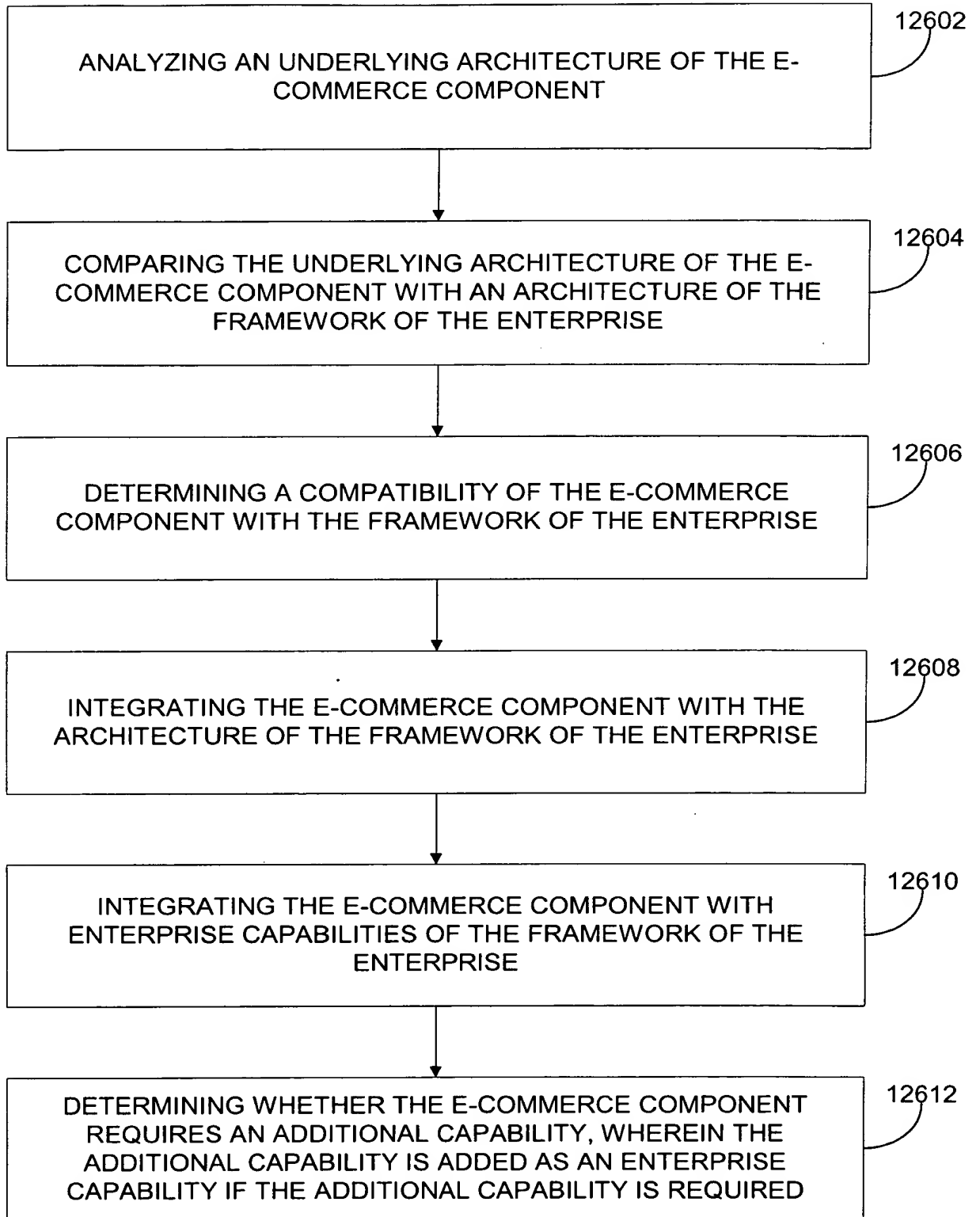
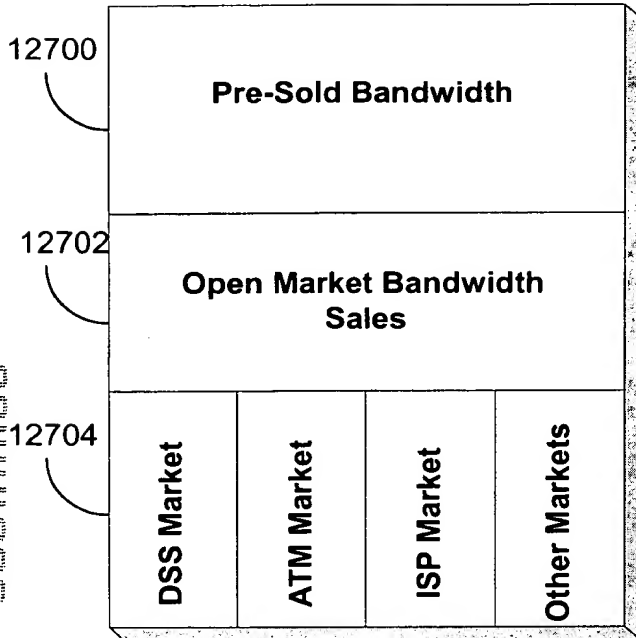


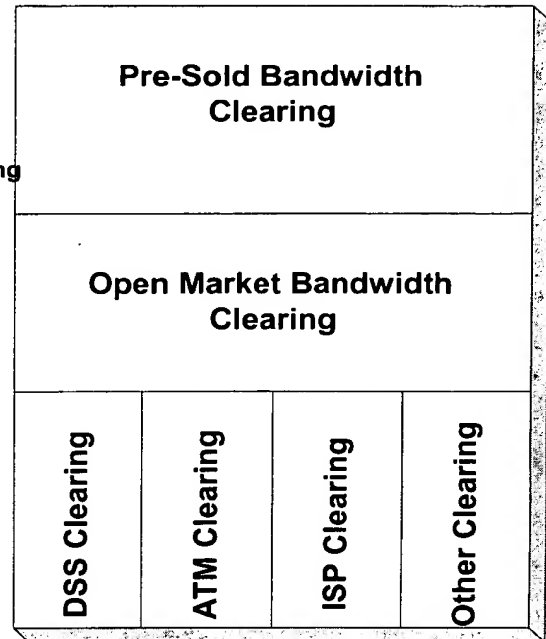
Figure 126

Bandwidth Market

Bandwidth Purchases



Net Settlements



Sales contracts
passed to clearing
and settlements
functions.

Contract IDs
correlate bandwidth
sales (with rating
info) to net
settlements
clearing function.

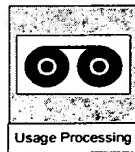


Figure 127

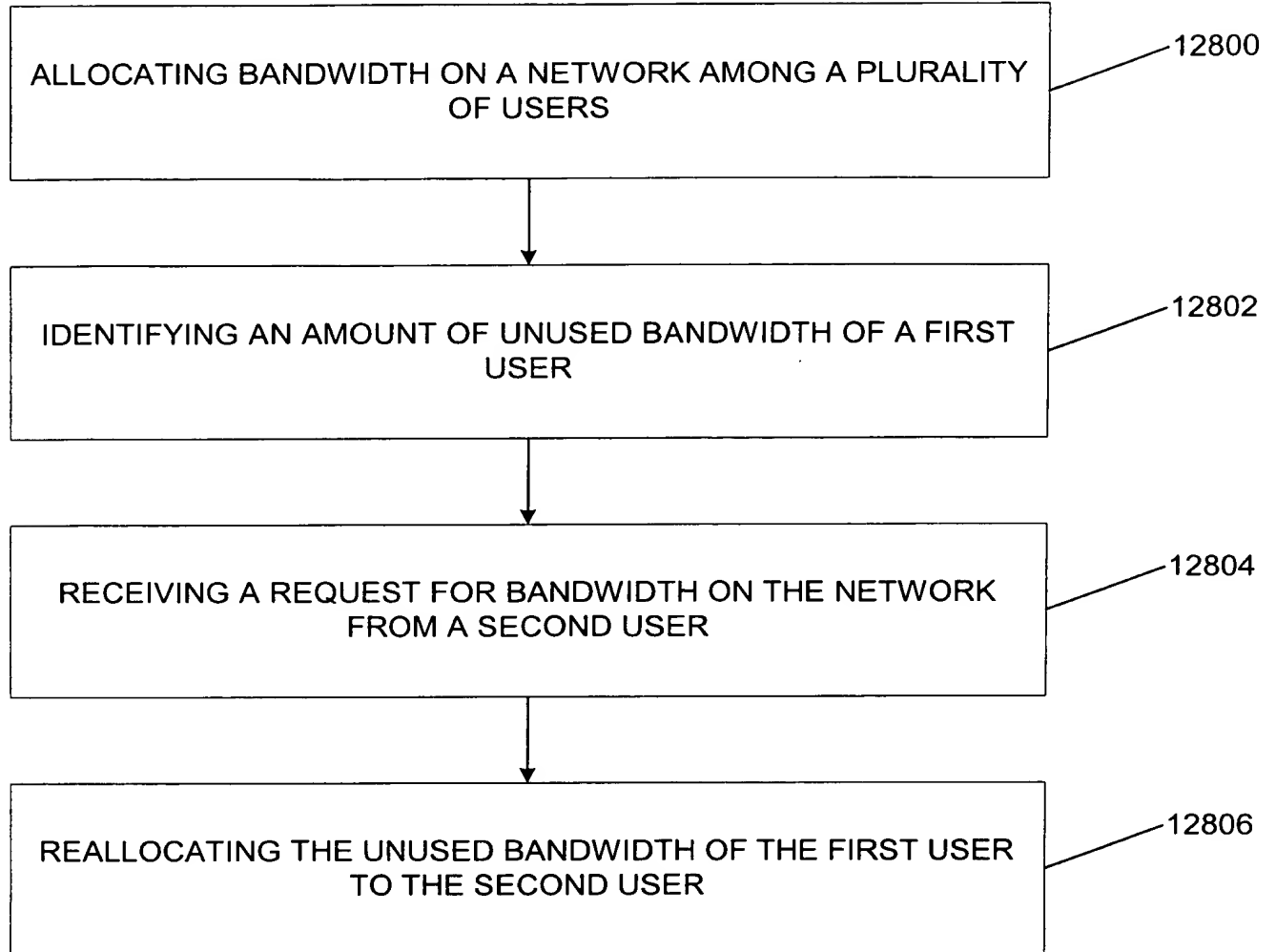


Figure 128

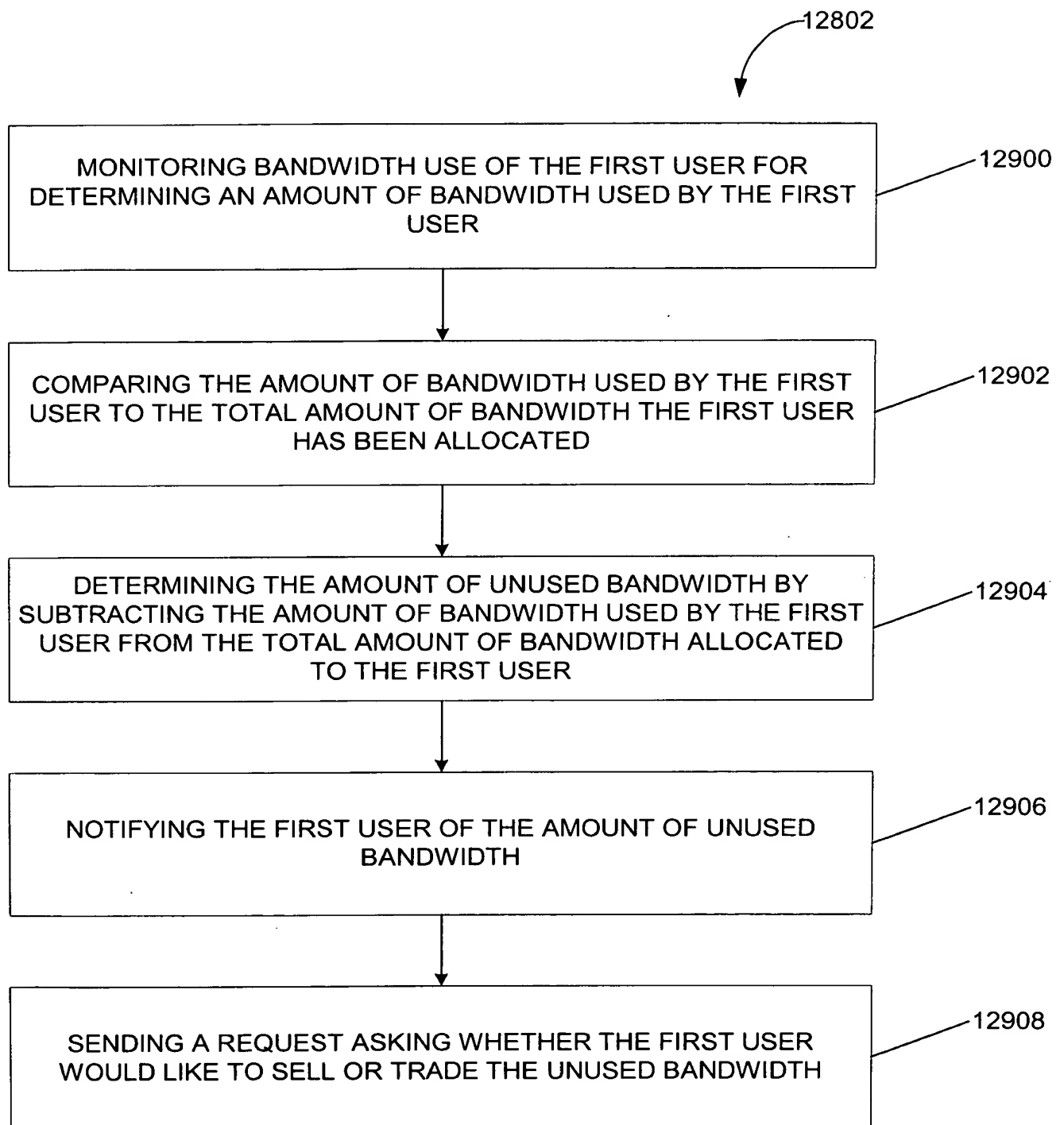


Figure 129

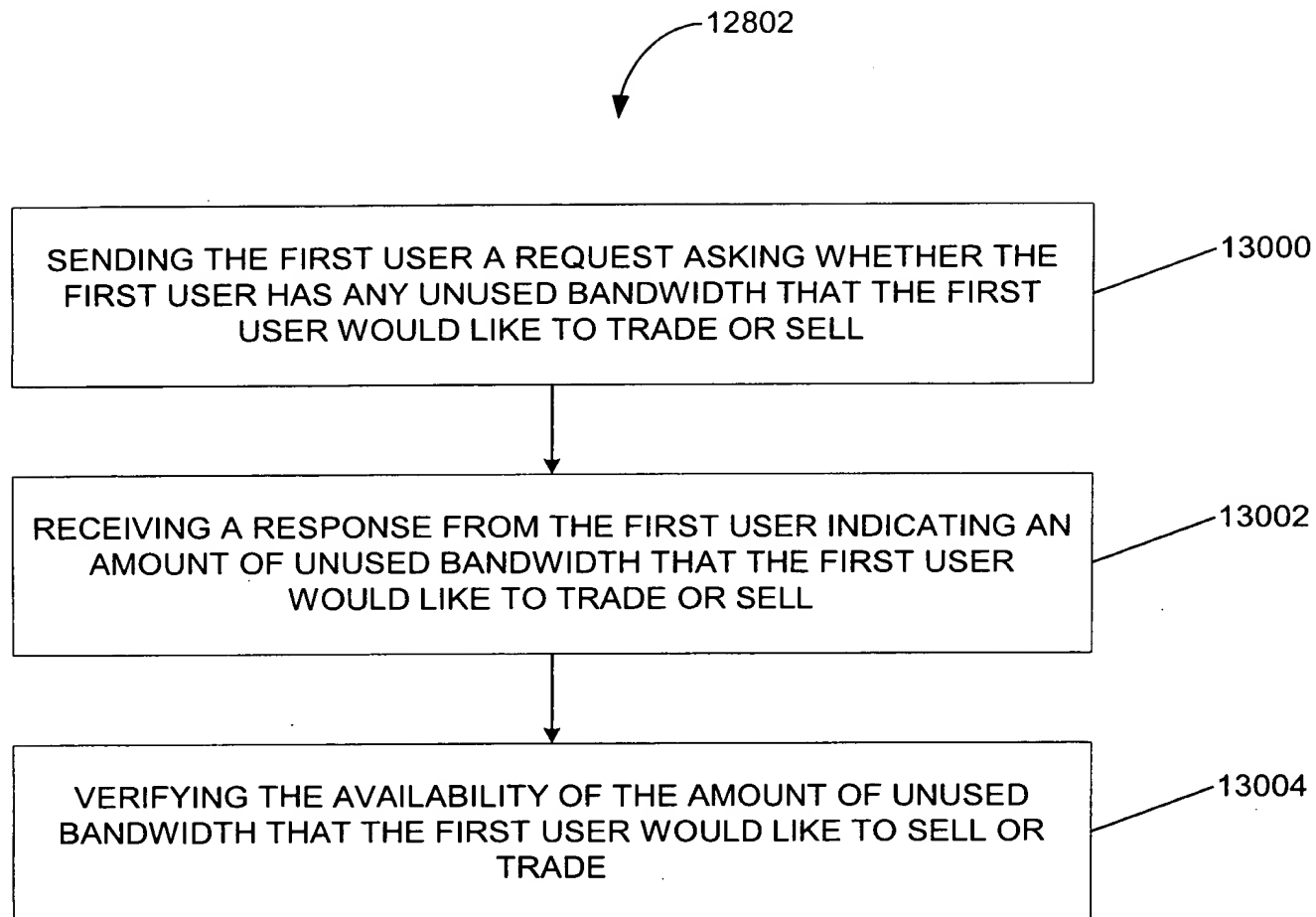


Figure 130

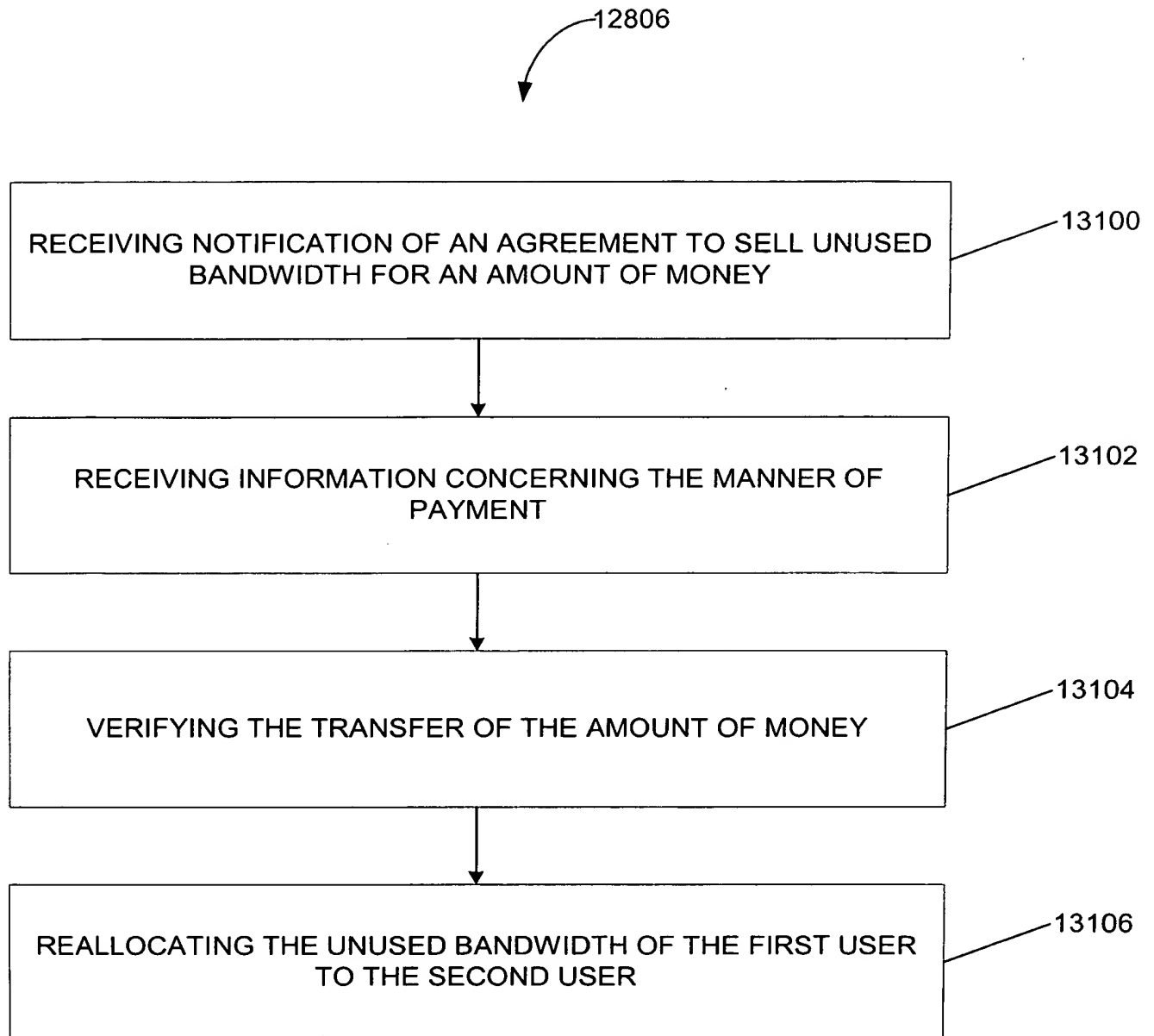


Figure 131

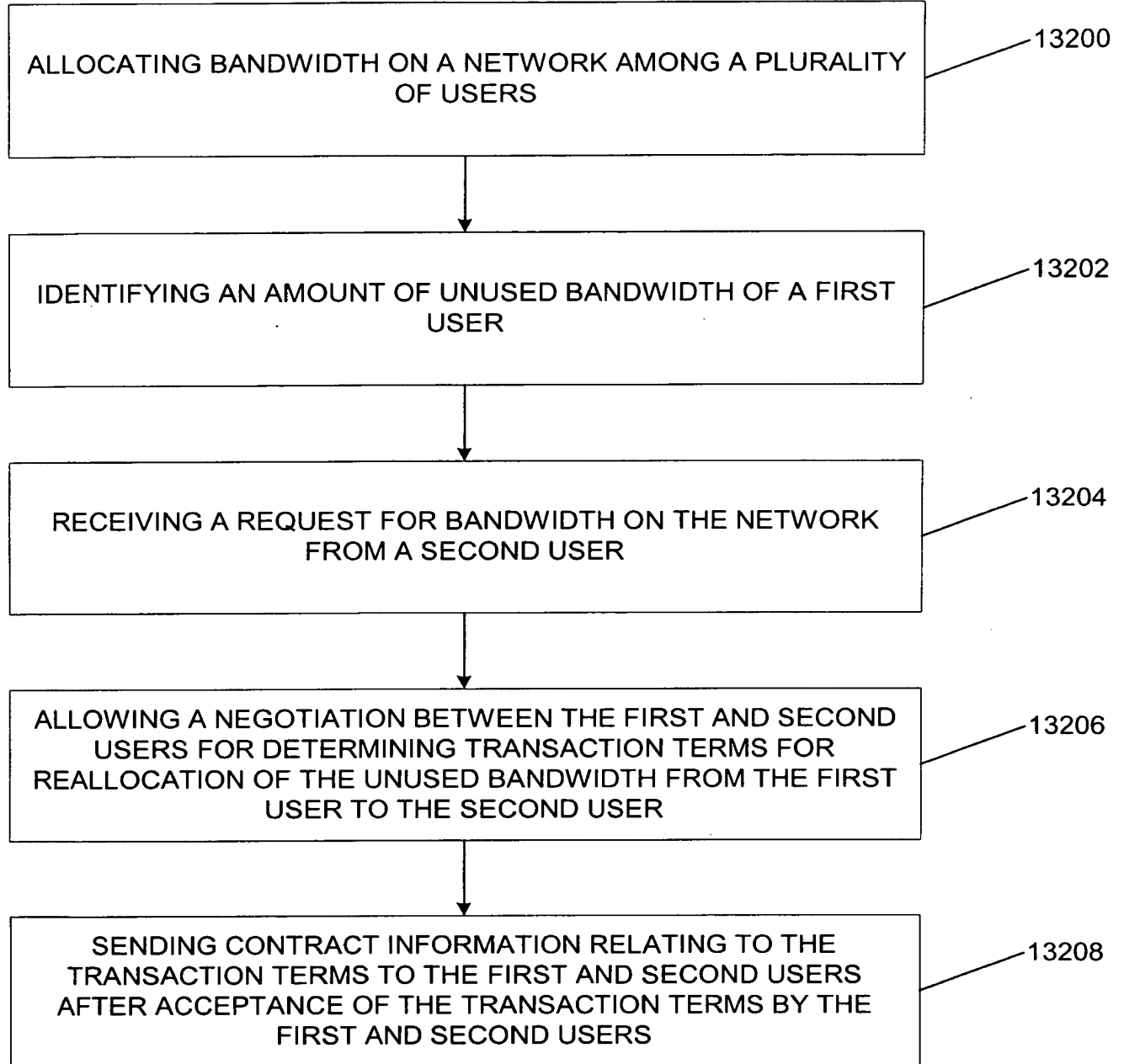


Figure 132

Bandwidth Contract Flow

13302

13308

Bandwidth Market

Step #4: Bandwidth purchase completes and transaction information (including pricing, QoS, etc.) recorded.

Clearing and Settlements

Step #9: CNBC correlates EDRs with contract and rates connection based on contract information. The CNBC then performs a clearing and settlements function netting out the transfer of funds between different DVNS.

Step #5: Contract information (including Contract ID) forwarded to clearing function.

Step #3: DVNS_b requests (bid) and purchases bandwidth for CPE_b connection

Step #8: DVNS_b forwards Event Data Record (EDR) to CNBC with connection usage information and Contract ID.

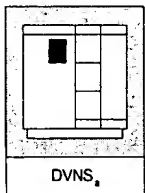
Step #7: CPE_b forwards Raw Usage Data (RUD) to DVNS.

Step #6: Contract information (including Contract ID) forwarded to CPE_b.

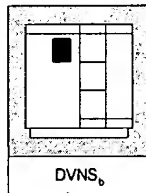
Step #2: CPE_b requests bandwidth for connection

Step #5: Contract information (including Contract ID) forwarded to all DVNS involved in transaction.

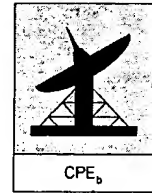
Step #1: DVNS_a posts (offer) excess bandwidth on market.



13300



13306



13304

Figure 133

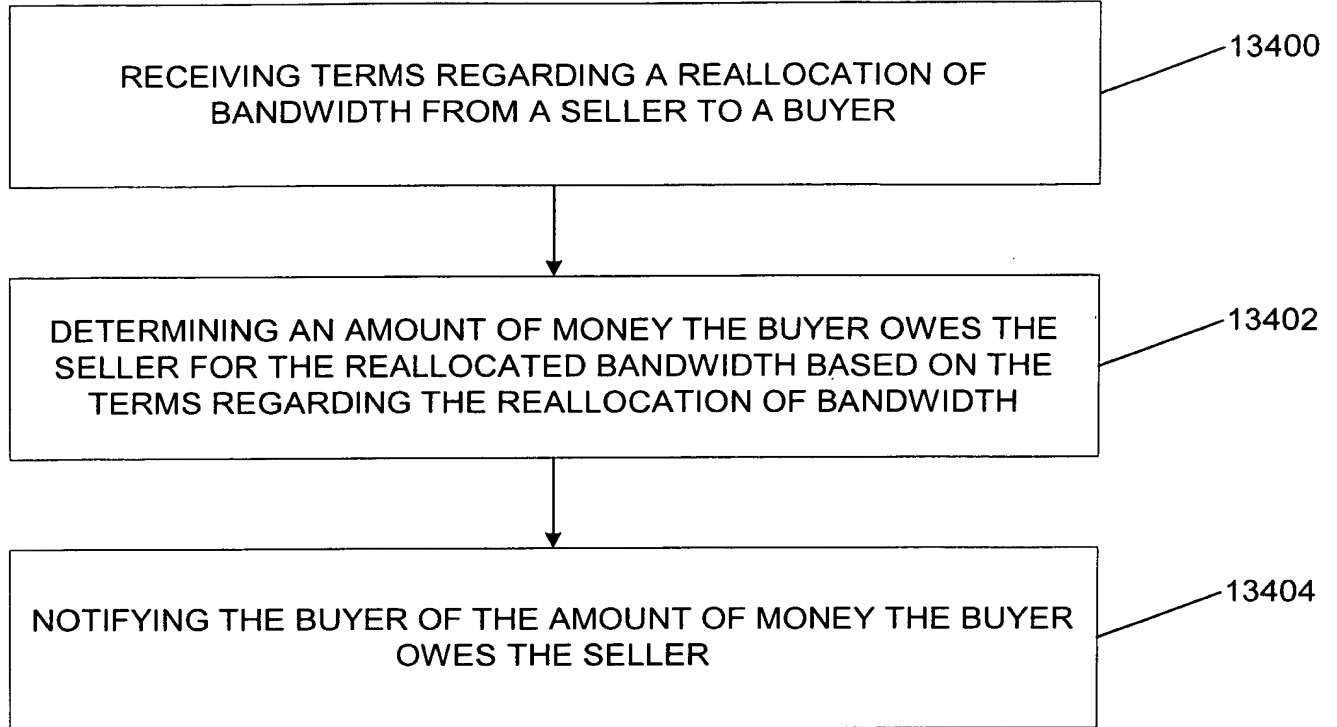


Figure 134

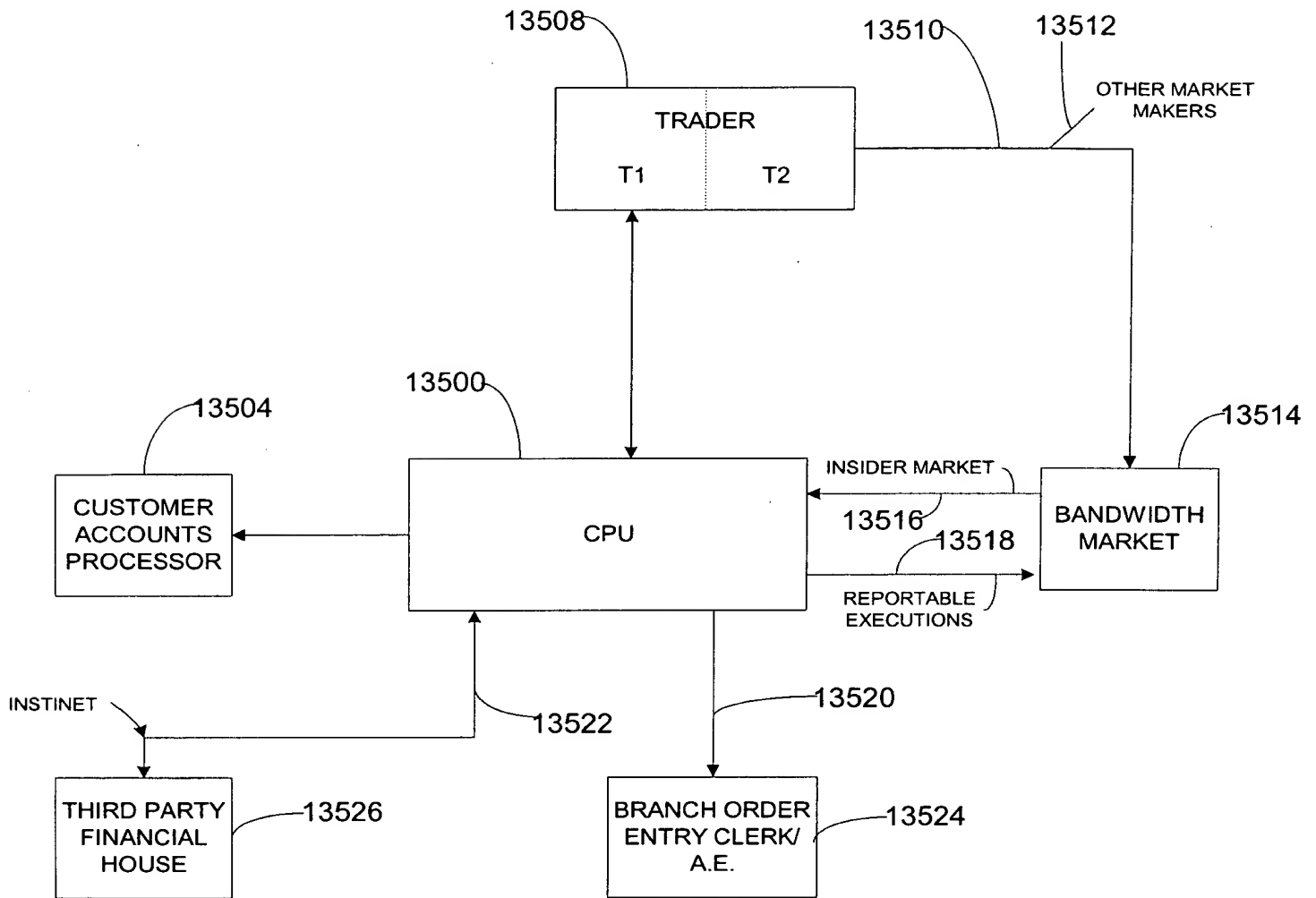
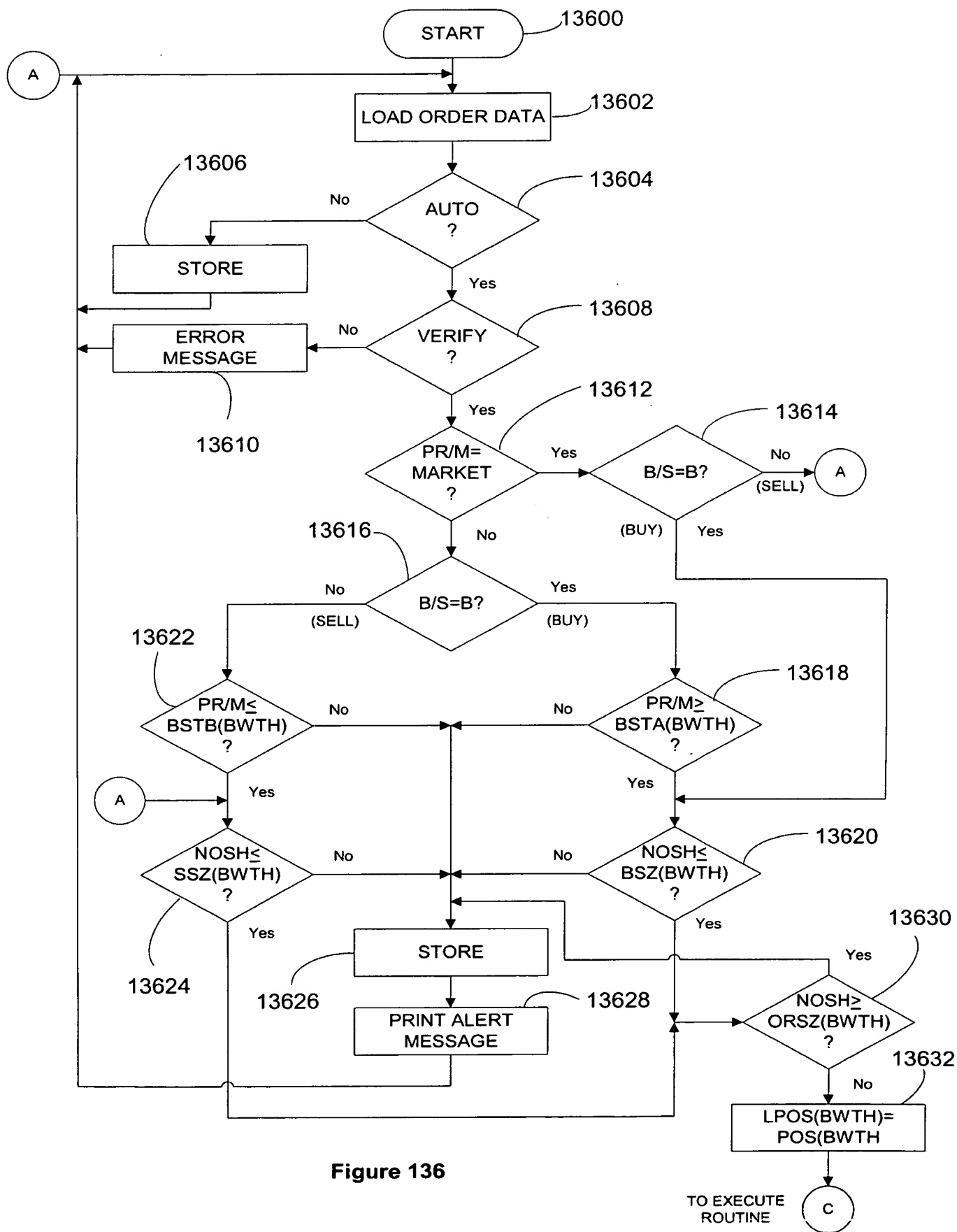


Figure 135



FROM ORDER
QUALIFICATION (FIGURE 137)

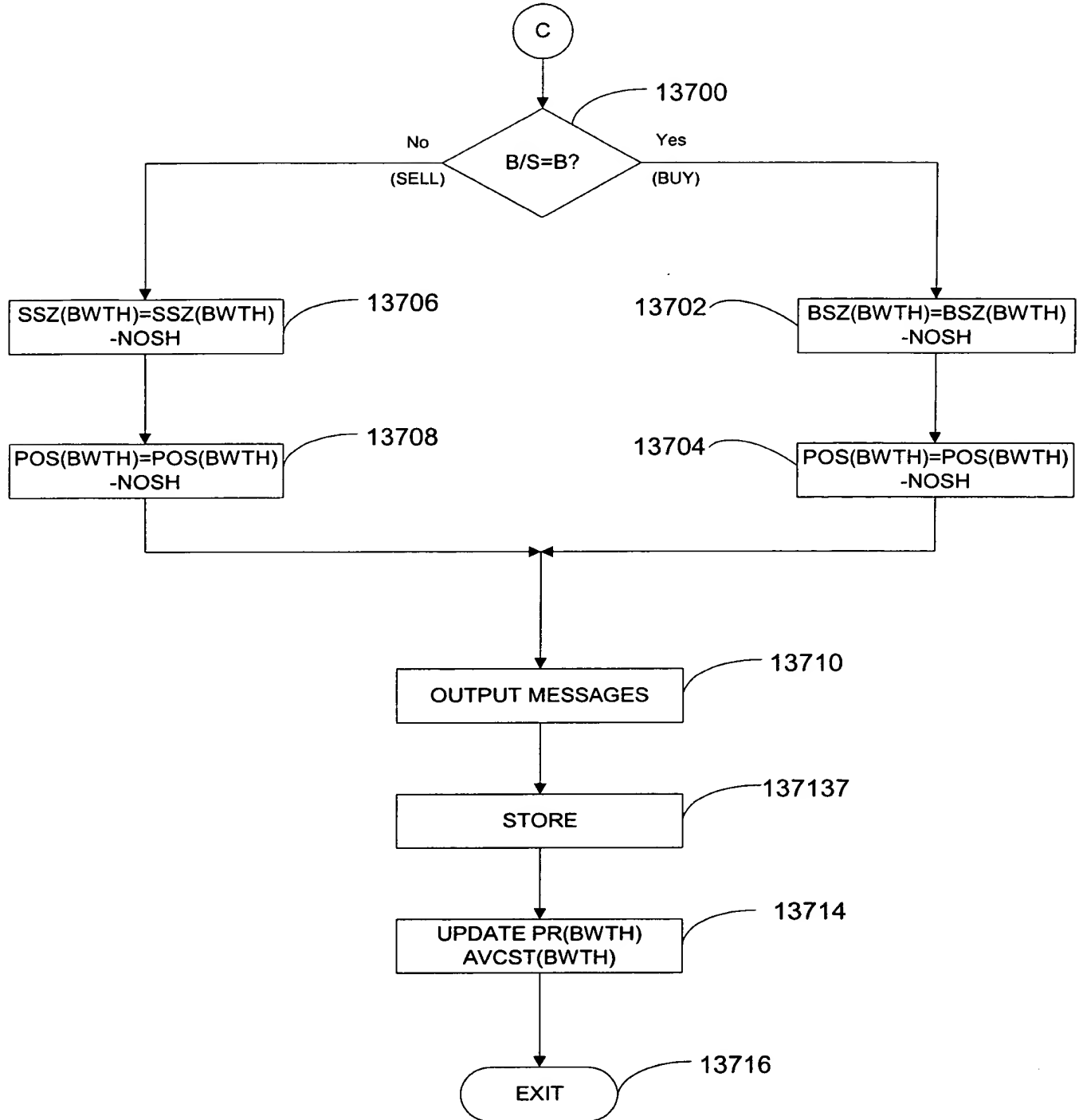


Figure 137

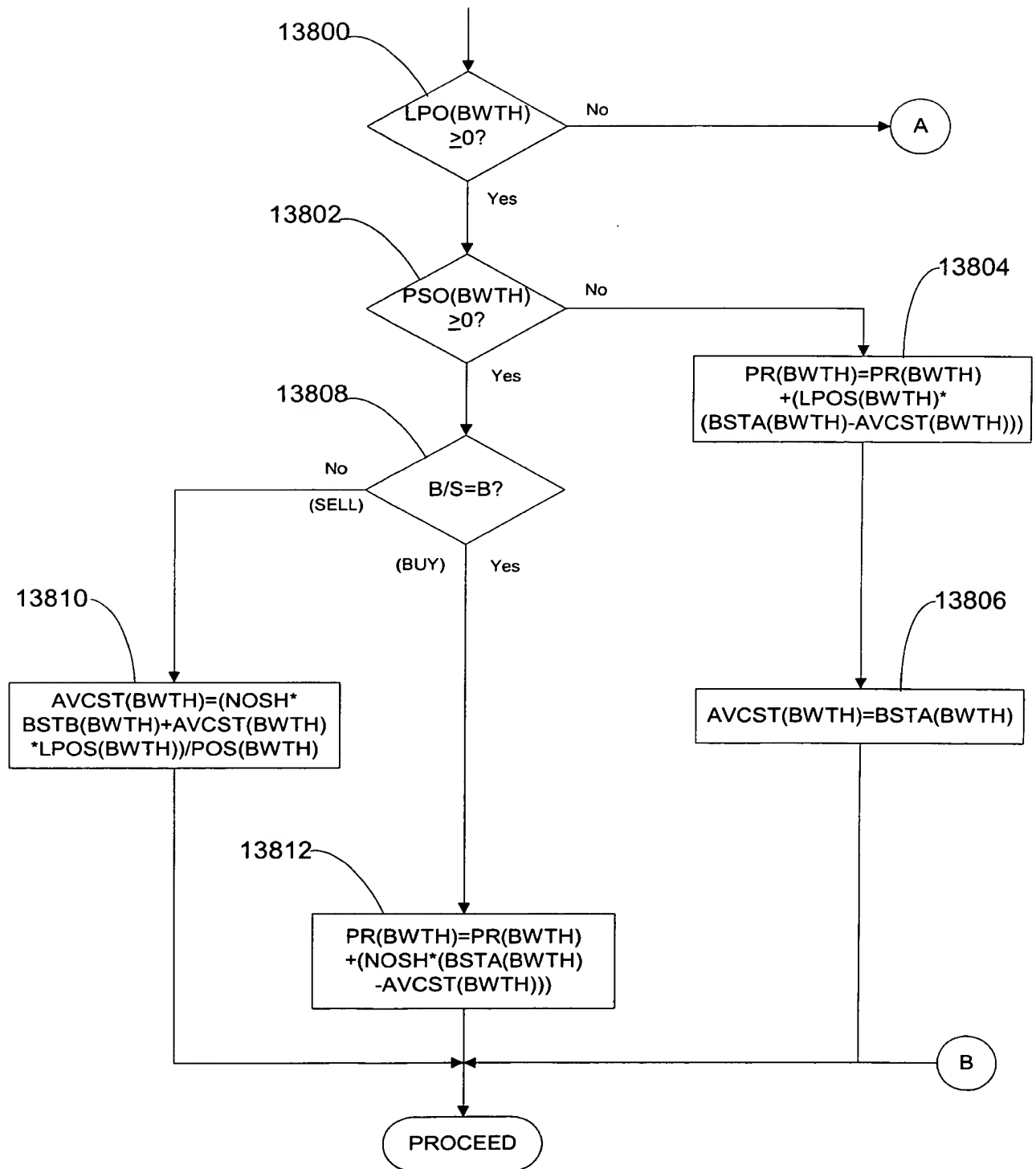


Figure 138

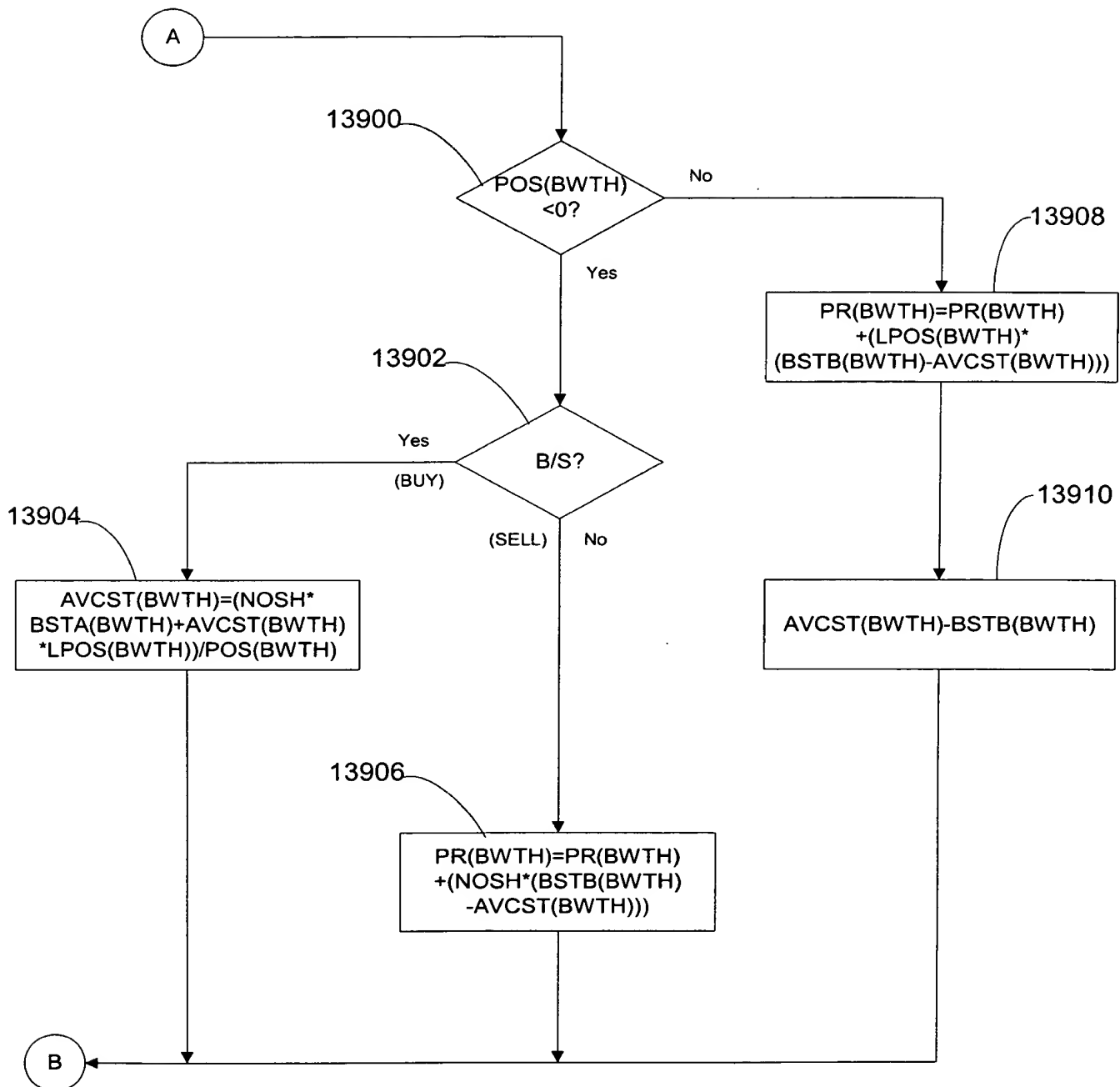


Figure 139

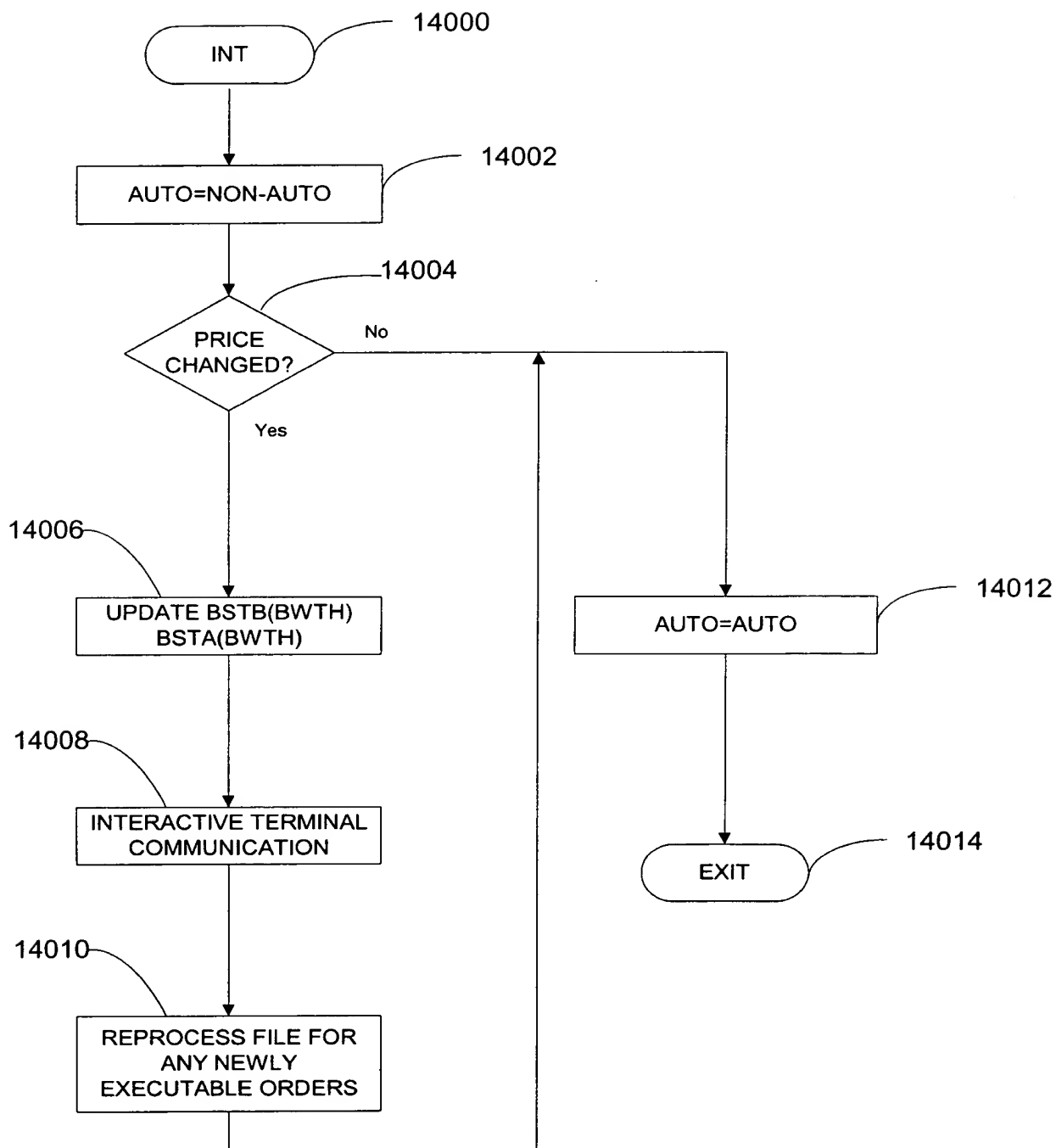


Figure 140

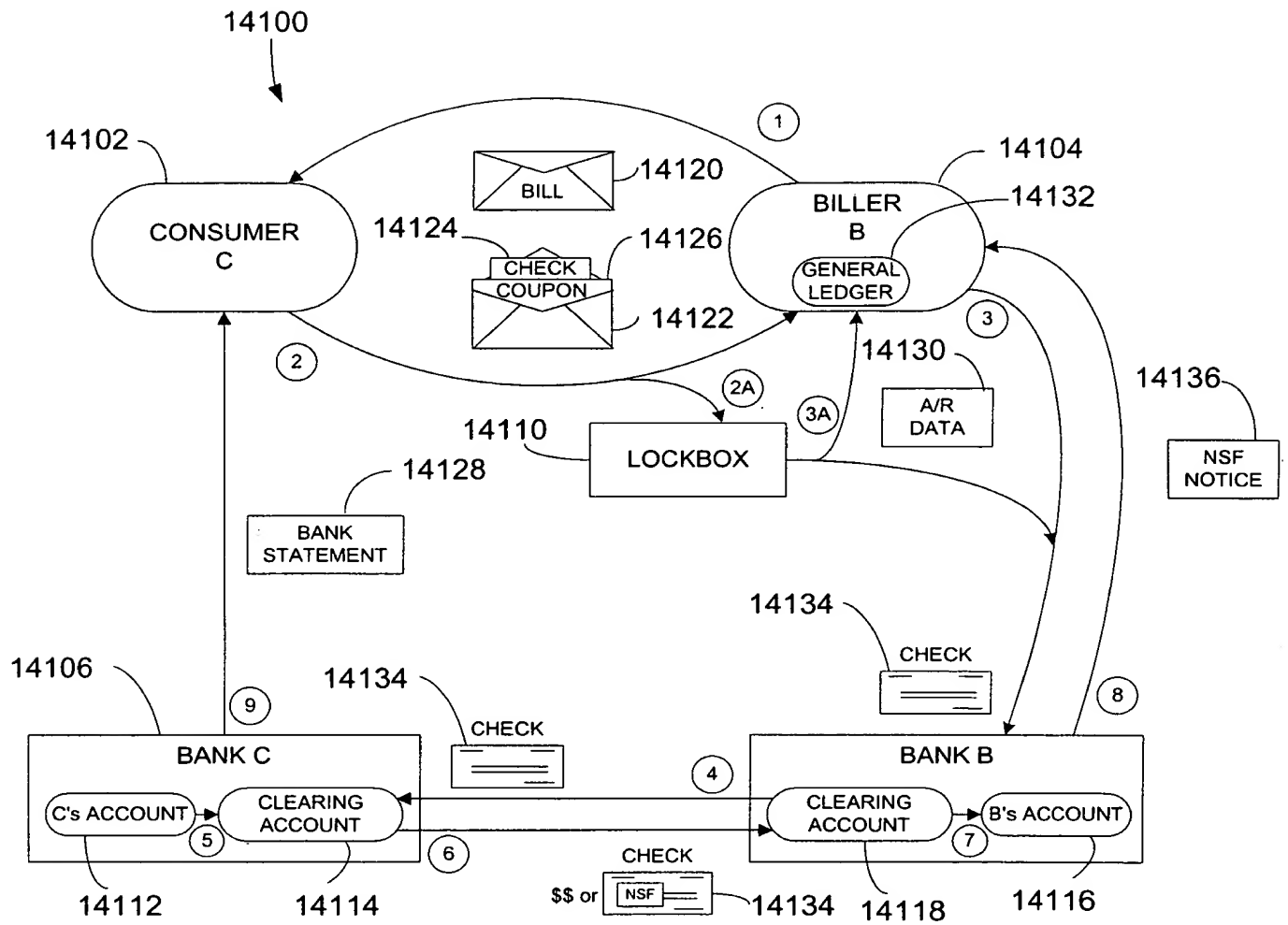


Figure 141

14200

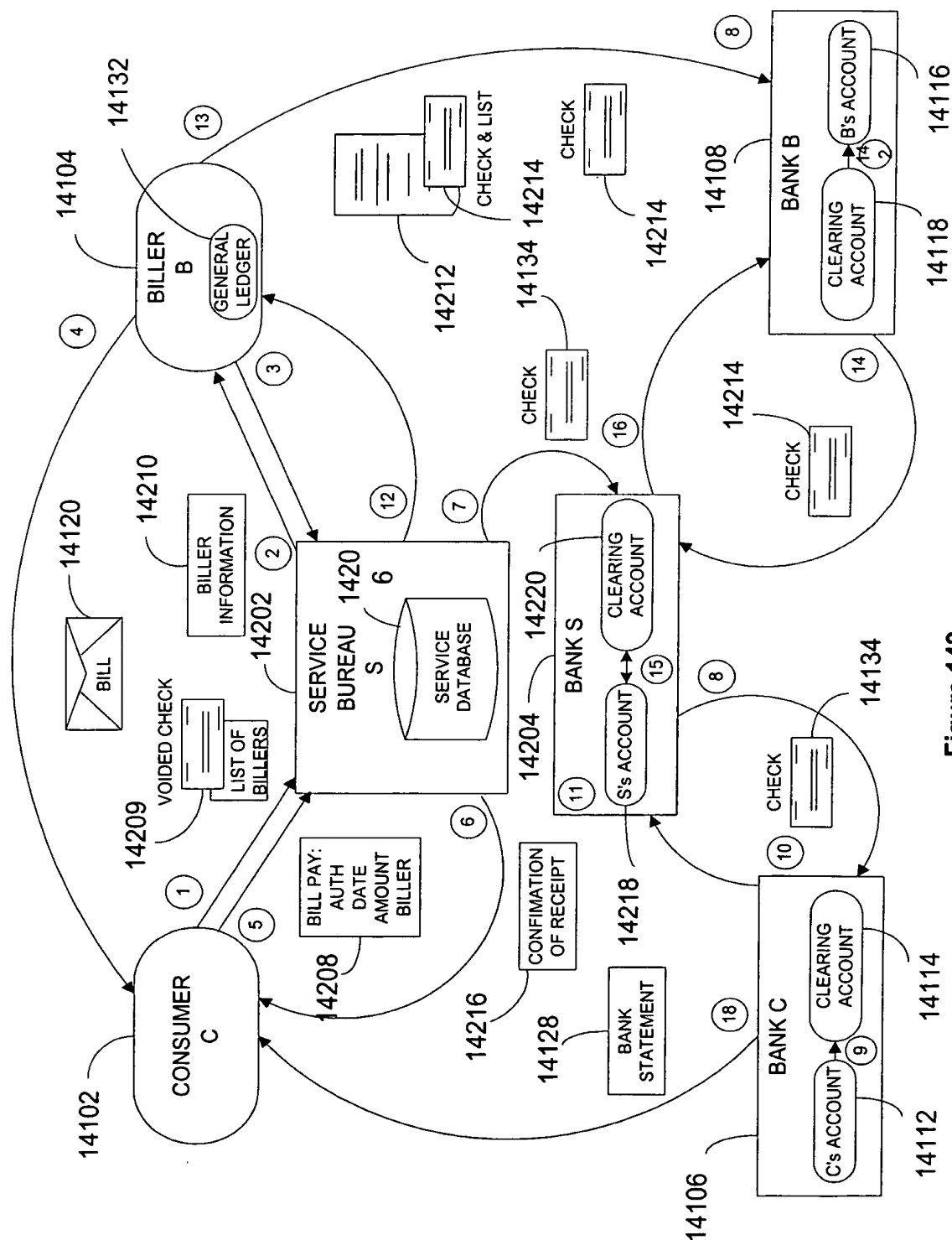


Figure 142

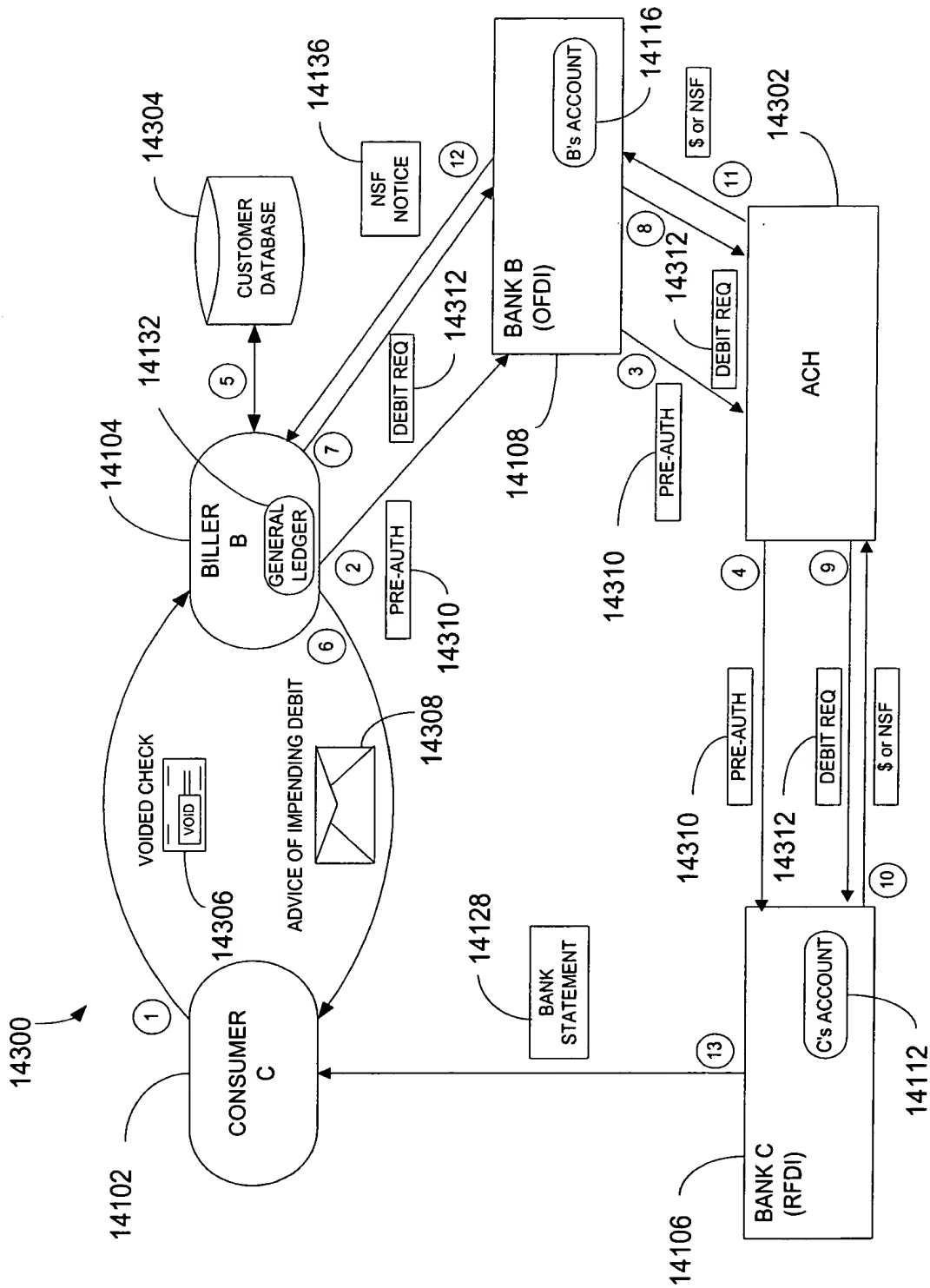


Figure 143